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## How Cooperative Service Effected a Successful Building Program

*Houston, Tex., has cared for its growing school enrollment by an expansion program that was the result of the whole-hearted cooperation of the superintendent, the business manager and the board of education*

By E. E. OBERHOLTZER, Superintendent of Schools, Houston, Tex.

CERTAIN fundamental principles underlying the successful administration of a public school system are as fixed and immutable as the economic and fundamental principles that govern industrial enterprise, yet the objectives for which the public schools are maintained are entirely different from the ends sought by industrial enterprise.

Profit or dividends accruing from public school administration are more or less intangible and cannot be computed in economic costs. Public good will and the advancement of society to higher levels of living and good citizenship are too remote to be measured in the monthly or yearly balance sheets. The school executive must be alert always to the fact that public education and educational problems are susceptible to the movement of society as a whole. Such social movements are never static but are always dynamic, producing subsequent changes in educational policy, sometimes in teaching, sometimes in classification of pupils or in child accounting, each having a direct bearing upon school business administration.

In the past twenty-five years education has been adjusting itself in an attempt to meet social, civic and economic responsibilities. Following the recent phenomenal increase and expansion of the uses of the machine in industry and the increased

division of labor, the steady migration from rural districts to cities and changes in the ways of earning a living, the scope of the school has been widely extended and the end is not yet.

Whether there shall be included at the lower extremity the nursery school and at the upper extremity the junior college as integral parts of our public school system is a pressing problem. Moreover, the public has accepted the universal function of the school to be that of administering to every class within certain age limits, including children of all races and creeds, whether they are bright or dull, normal in body and mind or physically or mentally handicapped.

### *The Board Should Control Policies*

The public school system in every district of America is controlled by a board of school directors who are responsible to the electorate, such a district being "a body corporate, possessing the usual powers of a public corporation."<sup>1</sup> "Each individual district functions as a part of a state school system, operating under laws and powers granted by the legislature. . . . The state laws and city charters may control the authority of the board and limit its jurisdiction,"<sup>2</sup> and in the main,

<sup>1</sup>Wisconsin School Code, 1923, Madison, Wis., p. 406.

<sup>2</sup>Engelhardt and Engelhardt, *Public School Business Administration*, p. 7.

"a school district is a creature of the state and has no authority save that which is expressly conferred upon it."<sup>1</sup> In this respect the public school system is a business enterprise, operating under what may be called a charter, with powers and responsibility well defined.

The directing or controlling body, the school board, has authority to employ school executives and other professional employees and to delegate responsibility to them. Its chief function should be to determine policies, to appraise procedures and outcomes and to see that these policies and the work of the school organization are carried on through the delegation of such responsibility to the school executives. In each local district there are three groups who are directly interested in the school administration, namely, the public, the school board and the superintendent and his instructional staff.

#### *Why Board and Superintendent Must Cooperate*

The business management and educational administration of the school system are unavoidably interdependent. There was a time when the board of education assumed that the business management of a school system was its own responsibility. The expansion of educational programs, the increase in educational costs and the greater complexity of organization have had their influence in changing this conception of school management. It is therefore becoming increasingly necessary for boards of education to delegate to experts or professional officers the executive management that school boards formerly exercised.

Business management does not exist for itself alone. It is a cooperative service with definite responsibilities, such as anticipating needs, recognizing problems and assisting in their solution and in every way promoting the educational program with unending continuity and advancement. The managing school executive, superintendent or business manager, must possess sufficient training to understand the application of research, to appreciate scientific methods and to evaluate and direct the work of a trained staff.

Moreover, the functional divisions of educational service, as of almost any other public service, may be classified as legislative, executive and appraisal. The legislative function is concerned primarily with plan building. The executive function is concerned with the plan working, putting the policy into effect, developing technique and getting results. The appraisal function judges the effectiveness of the operation of the plan, determining the amount of success achieved

and modifying the procedure when necessary.

School executives are counselors to the board of education in building or setting up the plan of work, and they are the directors in carrying out the plan. In short, they are the engineers who plan the work and work the plan. Through scientific planning the control body interprets and expresses the social needs of the people. When the board of education in cooperation with its executives and advisers sets up a comprehensive and practical plan, it has taken the first step in proper administration. The school executive is the technician. It is he who analyzes the needs on the basis of scientific evidence.

School administration is taught with plan making. The current budget should be thought of in larger units than one year's planning. The building program should be projected over a period of years, providing for continuous appraisal and easy modification.

The final test of the plan is the translation of such planning into an educational program. This program is the basis for cooperative service. The public, the employed staff and the board of education should be mutually cooperative. Business administration is vitally concerned with such a program. It must help to interpret the social needs in terms of finance. It must understand the ability of the community to support the program and it must appraise the willingness of the community to make the sacrifice to secure such benefits.

#### *Winning Cooperation*

The cooperative service of the superintendent and business manager, therefore, depends upon:

1. A complete understanding of both the educational philosophy and the educational objectives for which the school system is operated.
2. A scientifically and professionally trained staff which includes the executive who is the leader.
3. Unified effort and support of the policy and program approved by the board of education and directed by the superintendent.
4. Efficient organization and assignment of duties.
5. Provision for a thorough system of accounting and appraisal which shall be used as the basis for keeping the professional staff, the board of education and the public informed.

Of these groups special reference should be made to the public and the manner in which it is informed of the work of the schools. The degree of success achieved in public school administration depends finally upon the active and sympathetic support as well as the financial assistance

<sup>1</sup>Henzlik, F. E., *Rights and Liabilities of Public School Boards*, Bureau of Publications, Teachers College, Columbia University, p. 21.

of the public. The willingness of the community to support education is in direct proportion to its confidence in its school administration, its understanding of the school program and its ability to pay. The school management should therefore provide simple, comprehensive and continuous information about the schools for its community.

#### *How Houston Has Met Its School Needs*

The principles of cooperative service in school administration can be illustrated best by reference to the community served. These illustrations are taken from the community that I have served during the past six years, Houston, Tex., a growing city of approximately 300,000 people. According to the last census report the population has increased 110 per cent over that reported in the 1920 census. The most rapid growth has occurred during the past six years, evidenced by the doubling of the school enrollment.

Three major problems of school administration have challenged the attention of the Houston board of education during this period. The first involved the reorganization of the old 7-4 system to the kindergarten-5-3-3 type of organization, thus introducing the junior high school and the subsequent building program adequate to meet the needs of a rapidly growing city projected over a period of years. Coincident with the first came the accompanying problem of rewriting the curriculum and readjusting the instructional program, both so intimately tied up with the building program that the solution of each separately was impossible. The third and most treacherous problem was the revision and rewriting of the salary schedule. The board of education called upon its executives for analyses of the needs, based upon definite information, together with suggestions as to how these needs might be supplied.

The building survey was the first step taken and involved a complete survey of the city and a study of the social, economic and industrial fields, looking forward to the planning of a building program. Preceding this step, however, was the determination of the objectives of the type of organization to be used. The board of education laid down a certain plan to be followed, which, briefly, was to this effect: The school executives recognized as expert technicians and leaders in this study were the superintendent, the business manager and the consulting architect. It was the work of this executive staff to get information, to evaluate such information and to suggest procedures for carrying out the program and at the same time to provide a means of appraisal so that the board of education as the control body would have information at hand when it needed to exer-

cise its function in determining policies or in appraising the work accomplished.

This executive staff at once began to derive and to set up standards for guidance in the building program. For example, one of the first problems to be determined was the area of the elementary, junior and senior high school sites. Taking into consideration the best practices and the more recent trends, it was decided to allow five acres for the elementary school sites, ten to fifteen acres for the junior high school sites and fifteen to twenty-five acres for the senior high school sites, with a minimum of the first mentioned number. It was necessary for this staff to supply information to the board of education and to follow such information with discussions among the laymen group so that the public might be better informed. In this work the executive staff cooperated wholeheartedly.

Out of this situation another problem arose, namely, how to meet certain difficulties that are usually encountered in acquiring school sites. There are always present certain groups who for selfish or other motives try to influence the choice of new school sites. The survey policy approved by the board required impersonal findings. The business manager was directed to require appraisals, to have these appraisals checked by a separate committee and upon the approval of the board of education to offer the purchase price determined by this procedure.

Should the owner refuse to accept such an offer, in accordance with the policy approved by the board of education, condemnation proceedings automatically followed for the purpose of acquiring the property. In carrying out such a policy it was necessary that the findings of the committee be kept confidential in all matters that might lead to price fixing or to organized attempts to frustrate the carrying out of such plans.

#### *Acquiring the Site*

In these matters the business manager was largely involved. The board of education gave him a free hand in the selection of the personnel of the appraising committee and in the condemnation proceedings and held him responsible for the results obtained in accordance with the policy established. At no time did price influence the selection of sites. The instructional program, the desirability of the site, its location and relation to the community served were the prime considerations.

Again, when the consulting architect began planning certain definite features of the building program, it was necessary to select standards to be used. How much blackboard space should there

be? What type of construction should be used in the corridors? Wherein should the heating installation be changed? What type of constructional material should be used in the ceilings? The answers to these questions involved intimate knowledge and observation of the school plant from the standpoint of durability, maintenance cost and instructional program.

#### *Plan Must Dovetail With Actual Conditions*

Both the consulting architect and the business manager must appreciate the manifold changes in the instructional service. The modern school has traveled far from the traditional school. Buildings can no longer be designed on the basis of their appearance or on the basis of certain standard features. General practice or frequency is not a safe guide in erecting buildings. For instance, is the lunchroom to be used as a 3-1 combination, that is, for lunch-play-auditorium activity programs, or are these activities to be carried on in a platoon program or in the unit type instruction?

To facilitate this program of cooperation, the executive staff must determine the type of floor plans and successive units to be built, so that the first unit, in many instances a small one, may be constructed, or the entire building erected without decreasing the efficiency. Further planning has utilized uniform standards, resulting in more efficient use of the buildings.

The business manager, through his organization, cared for the more strictly business features such as contracts, accounting, checking and mechanical plans and specifications and the general efficiency of construction. The superintendent, although chiefly concerned with the instructional program, was continually studying the adaptations and changes in the types of buildings, the use of constructional material and the greater efficiency in building utilization. The consulting architect was the interpreter, adviser, and planner whose work was approved only as it enhanced instructional efficiency and the welfare of the children.

The true worth of such cooperative service can be more fully appreciated when it is applied to specific fields. One apt illustration of this should be mentioned, the problem of whether or not systems of heating and ventilation requiring a certain type of machinery, equipment, ventilation ducts and other elaborate accessories should be installed. The members of the executive staff were divided in opinion as to the best policy to pursue. What best practice, what scientific proof and what authority could settle this vexing question? In this building program, including eight new junior high

schools, the recommendation of the executive staff resulted in a saving of a little better than \$200,000 in the contract cost of these buildings because, by investigation, a research study was found that answered the question once and for all time.

One other suggestion may be offered to show how wide and fruitful is the field for improvement in the training of the personnel staff. How shall teachers, principals, supervisors, custodians, supply commissioners and others understand each other, appreciate fully the importance of each other's work, learn to conserve energy and to lend encouragement to the best effort? These requirements are satisfied best by proper training of the personnel. Many of this group have met admirably some of these problems. Preparation and training in service and accurate accounting and measurement of accomplishments are prerequisites for efficient administration. For such training there should be a school for every group and for every worker there should be improvement courses, progress charts and efficiency ratings.

What then is the final measure of success? Can this measure be the rank obtained by comparison of your city with neighboring cities or by setting up forms to find where your community is located on the curve distribution? Should the expert be called in to gather the case history of your community or should you, a responsible executive, continue to derive such objective data, plan the projected work and fix higher goals for professional achievement? The answer is that your community will some day call upon you for an accounting. What evidences have you to present to satisfy those who pay?

#### *Is Your School Publicity of the Right Type?*

An expert in school publicity recently said that the public knows little about its schools and that it knows the most about those things that are not the most important. He said further that the information desired most by parents is what is going on in the classroom, how the child is progressing and what is being done to improve child welfare. On the other hand, what the people are told most about is usually something that took place at the meeting of the board of education or something that happened at the parent-teacher association meeting. Such information has its place, but the order should provide that first things come first. Do not forget that laymen are interested in how you do your work. They will listen to the story of how reading is taught, how food is served or how the health is protected by careful planning of the buildings. What affects the child is the most valuable knowledge for the parent.



*The "social period" at Newberg High School, Newberg, Ore., under the direction of a teacher specialist, has proved to be one of the most popular courses.*

## Centralizing Outside Activities

By JAMES T. HAMILTON

Superintendent of Schools, Newberg, Ore.

NOWADAYS most schools that make any claims to progressiveness are attempting in some manner to give the so-called extra-curricular activities definite guidance in order to realize more fully their educational possibilities. The oft-quoted saying of Doctor Briggs to "teach boys and girls to do better the worth while things in life they are likely to do anyway," has become in many schools more than a rhetorical aim. In achieving this aim, such schools have found an excellent point of departure in trying to improve

of the school as they are directed by various teachers. Another method is the centralization of many of the activities of the school under the control of one teacher who devotes full time to this work and who is especially well fitted for it.

It is the last way that this article describes, not because it is claimed to be the best way but because it is a way that has worked successfully in guiding the energies of adolescent youth.

For the past three years pupils at Newberg High School, Newberg, Ore., have been encouraged to

and develop the activities that have been relegated to the hours when regular school work is over.

There are many ways of doing this. One is by means of an activity period in which time is set aside within the school day for organization meetings in connection with the extra-curricular program. Another is the stimulation of extra-curricular interests through the roll room group. Some schools are experimenting with an activity director whose task it is to supervise and correlate the activities

enroll for a half credit in what is known as the "social period." At present there are six such groups which average about thirty-five pupils to a group and comprise about 60 per cent of the entire high school enrollment. Such groups meet in the auditorium every other day. Although membership in the group is entirely voluntary, during the past three years the number of pupils enrolled for the social period has been steadily increasing. No pupil is given credit for more than two years of such work, but, despite this fact, a great many pupils are taking it for their third year without credit. Indeed, for a large number of pupils, the artificial reward of credit is a minor consideration.

In many ways the social period groups resemble the auditorium groups of a platoon school. In fact, such training was begun in the high school because we were so well satisfied with the results of auditorium training in the elementary school under the platoon type of organization. In order to fit into high school needs, however, the aims of social period instruction must be somewhat different. Briefly these aims are: (1) to make all high school activities better and to sponsor additional ones that appear to have merit; (2) to encourage greater contact between the high school and worthy community activities; (3) to discover and to help individual talent; (4)

to provide an opportunity for correlating high school subjects and the work done by teachers.

In an attempt to realize the foregoing objectives we are trying to be fully conscious of certain concomitant values which will be, we hope, permanent.

These are: (1) a thorough appreciation of the importance of careful planning and careful organizing in relation to the success of any undertaking; (2) a more discriminating taste for the best in life's activities; (3) improved ability to be a good leader and a good follower; (4) a recognition of the importance of courtesy in all life's relations; (5) a tolerant attitude toward the shortcomings of others; (6) increased ability to accept responsibility.

These aims are common in varying degrees to all of the newer points of view relative to extra-curricular activities. The difference will be found in the method of realizing them. Under the plan here described this responsibility rests, not with several teachers who are in a position to devote only part of their energies to such guidance, but, primarily, with one teacher who devotes full time to this guidance and becomes a specialist.

It must be strongly emphasized that the whole success or failure of this method rests entirely with the teacher. This is not an organization scheme which of itself will do any good unless the teacher who does the work has the ability to do it well.



*What goes on behind the scenes when a student play is in progress is shown in the upper picture. Pupil actors are effectively "made up" for their parts by other pupils. Nor is any scenery ever imported for a stage production. It is all designed and painted by pupil artists who are shown at their labors in the lower picture.*



Such a teacher must know what she is trying to do and be sensitive to how well she is doing it. She must have exceptional ability to organize and she must understand adolescent boys and girls and have their confidence, respect and continuous good will.

Generally there is at least one such teacher in a high school of medium size. If there is and if the school administrator feels that he can afford to release her from the task of teaching ordinary subject material so that she can devote her full energies to directing boys and girls, then the social period scheme will give her an opportunity to make contacts with the majority of pupils in the school, including most of the leaders, and her influence will have a marked effect upon all. Unfettered by

1. Do not start a project or activity unless the pupils in the group feel that it is their activity and are enthusiastic about undertaking it.

2. The "matter set out to be learned" idea will not work. Plans must be made, but not the curricularized cut and dried plans of the classroom. This is no job for a textbook teacher.

3. Results should be constantly evaluated in terms of pupil growth. Growth in organizing abil-

*Making and manipulating marionettes stimulates the pupils' creative ability.*



curricular responsibilities, such a teacher will exert a decided influence on individual pupils and on group morale. If she is of the right sort, she will grow rapidly in her task, and, needless to say, she will always have plenty to do and the thrill of a challenge ahead. Not every teacher can successfully direct young people in extra-curricular activities. It is a difficult type of teaching. There can be nothing cut and dried about it. It must be highly creative. If, however, a school has such a teacher and the need for such a service—and what school doesn't?—it is reasonable to assume that if she is released to put all of her energies into such a task, she will soon become a specialist.

The teacher who assumes this responsibility must be well versed in the principles of progressive teaching. Appreciation and practice of the general theory of the project method will be a valuable guide. Here are a few guiding principles:

ity, in planning ability and in leadership will result only if opportunity is given to practice these things. The teacher must not take such opportunities away from the pupil.

The subject matter of the social period grows out of the school and community life of the pupils. It may be an interclass party, a "pep" rally, the training of a yell leader, an assembly, an intergroup entertainment, a community request for high school talent or a ticket selling campaign. Whatever it is, at least the planning, and generally both the planning and the executing are done by one or more of the social period groups. When a project is undertaken, the group always is held to the ideal that if it is worth doing at all it is worth doing well. When a project is completed, it is always evaluated from this point of view.

As a result of the social period during the past three years, we have had some of the finest assem-

blies in the history of the school. During a semester we have about fourteen assemblies, all of them planned by these groups and almost all including a predominance of pupil talent. Most of the assemblies are dramatic. They include one-act plays, but in many cases they are whole programs of original material centering around a main idea or central theme. The latter type represents genuine creative efforts to work out cleverly and artistically the central theme and to make use of every variety of pupil talent. Special days furnish the motifs for many assemblies of this kind. Stage settings are created to carry out the theme and varied talents, from dancing to choral singing, are called into play at these assemblies.

#### *Activities Are Varied*

The stage is often used for programs of a more impromptu type put on within the group. Often social period groups entertain similar groups with exchange programs. In this way new talent is discovered and trained for the larger programs that are given. Also programs within the group are often attempts to bring about a correlation between social period activities and the work of the English classes, history classes, science classes and other subjects in the curriculum.

Besides these activities, social period groups have planned and carried on open house days for parents, season ticket sales for athletic contests, the production of a motion picture, "Treasure Island," an interclass field meet and many other things that are vital in every school and that are likely to be less well planned if pupils and teachers do not have considerable time within school hours for such work.

It is impossible to describe in this article the nature of all of the activities that are undertaken. The activities of one year are never the same as those of the next year, nor could the activities of one school be the same as those of another. The important thing is how the activities are conducted and the results that accrue from them. Let us consider, therefore, the administration of the social period program.

#### *Group Must Be Willing*

As has been mentioned before, no activity is undertaken by a group unless the group has a strong willingness to undertake the activity. There are no curricular obligations to be met, so the group is free to engage in some interesting activity that promises to be reasonably meritorious. Many of the projects originate with the teacher, but if the interest of the group cannot be aroused, the activity is not urged upon them. It is important that the groups be led into the worth while.

When the work of planning and organizing a group project is once agreed upon, it is done by committees. Can high school pupils be trained to get things done through committees and is such training of any worth? We believe that we have gathered ample evidence to assure an affirmative answer to both questions. Ability to get things done by committee is indeed a complex skill. Many adults make exceedingly poor committee members,



*Seeing that everything runs smoothly back stage is the job of these boys.*

yet how important is such training in modern life. Again the teacher occupies the key position to success or failure in this training.

Here are a few suggestions:

1. Select carefully the pupils who are to serve as chairmen of the various committees. Much of the success of committee work depends upon the chairman.
2. Be sure the personnel of the committee will work together. Sometimes there are petty differences that prevent the fullest cooperation. Such a difficulty should be corrected.
3. The committee should have a clear and definite idea as to what it is expected to do.
4. The teacher should be constantly in contact with what the committees are doing.

The committees meet in the auditorium. The room is large and the various committees are able to scatter themselves so that their conversation and activities do not interfere with each other. Many days are sometimes spent in such committee planning. After each meeting, committee chairmen are required to fill out a written report telling what has been accomplished. Such a report is stimulating to the committee and it keeps the teacher informed of the progress that is being made. Progress is also guided through frequent short conferences with

committee chairmen. Many difficulties are avoided in this way. As chairmen and committees prove their competence, they are trusted to go ahead with less supervision.

With proper standards and efficiency on the part of the teacher, committee training will yield results in the way of increased appreciation of well planned and well executed projects. Many pupils become emotionally sensitive about a project which, because of poor planning, fails to go off as well as it might. When pupils reach such a level they are no longer content to do things haphazardly.

Committees are held responsible for planning every detail so that there are no last minute blunders. If the project is an assembly program, it must be well timed, carefully announced and well staged as to properties, lighting effects, make-up and costumes. What goes on back stage during such a program is generally in the hands of the pupils, the teacher having joined the audience. The group, as it should, learns to feel that it is its program, and woe to the individual who blunders in doing his part! As most pupils are generally more sensitive to group criticism than to teacher criticism, rare is the pupil who fails to "come through."

The completion of any program or project is always followed by a free discussion and criticism as to how it might have been bettered. It makes no difference whether or not the project will ever be presented again; rather it is the originality, the careful planning, the individual responsibility shown in connection with the activity that receive praise or blame. In this way habits of responsibility are built up.

#### *How Pupils Are Rated*

A word should be said relative to the records kept of individual pupils. By means of a card index file pupils are carefully rated as to leadership, responsibility, cooperativeness and specific talents. After each activity, such ratings are again checked and improvements noted. Every outstanding bit of individual work is carefully recorded. Old talents are developed and new ones discovered and a record is made of them. Individual conferences are often held as a result of the records. These records are also used as a basis of recommendation to other teachers who want pupils for responsible positions in connection with specific activities. The effect of this "placement bureau" is to improve materially the quality of the candidates selected for many pupil positions of responsibility throughout the school.

What are the results of this way of conducting the extra-curricular program of the high school? They may be summarized as follows:

1. The extra-curricular work is placed under the

control of a teacher well qualified and with sufficient time and freedom to make a specialty of carrying on such work.

2. Such a teacher comes in contact with a large proportion of pupils and her influence is felt throughout the entire school.

3. The waste space of an auditorium is utilized.

4. All of the activities of the school become better organized and better executed as a result of this training.

5. The learning results, both direct and concomitant, are exceedingly valuable in training the young for a democracy.

## Eliminating the Fire Hazard in Schools

The fire hazard in public schools involves serious responsibilities to which school authorities in general are not awake, according to Dr. Thomas D. Wood, chairman, committee on the school child, White House Conference on Child Health and Protection.

Even in the most modern buildings the possibility of even minor conflagration, with attendant dangers of panic and confusion, is not entirely removed, Doctor Wood says.

In older and less substantial buildings which are poorly maintained, the dangers are greater.

The schoolhouse raises problems in plan and construction not encountered in other types of buildings largely because children and youths, easily precipitated to panic, occupy and utilize the structure, he points out.

To meet this need and avert the hazard of fire, the importance of the building construction is emphasized. Only engineering principles that have been tried and accepted should be followed. Stairways should be so arranged that the building can be emptied in three minutes or less.

Two-story buildings should have at least two stairways. In all classes and the assembly room, there should be two ways of egress.

Another suggested precaution is the assertion that the school building should have signal connections with the local fire department. It should be equipped with a fire alarm and an automatic sprinkling system throughout.

Doctor Wood stresses the importance of proper heating, ventilation and lighting systems in the schools. School equipment is recommended to fit the children physically.

The physical environment of the school plant should include proper site, adequate playgrounds and necessary gymnasium facilities to carry out the programs of physical education.

# How California Integrates Its Rural Schools With Life

By ADA YORK, County Superintendent of Schools, San Diego County, California

*This department of rural education is conducted by Helen Heffernan, chief, division of rural education, state department of education for California, Sacramento.*

SINCE 1921 the rural schools of California have extended and enriched the public school service to children in the open country. This has come about because of the provision through state and county aid of supervision for rural schools.

In San Diego County we based our program upon the underlying philosophy of integrating the activities of the school child in rural communities with life itself. In San Diego we are fortunate in having several organizations specifically interested in various phases of culture. For instance, our fine arts gallery has been established by a large association of men and women known as the Fine Arts Association of San Diego. The city has an active zoological institute which is continually extending its service to the public and is steadily developing its resources. Beside the city zoo, there is a privately endowed zoological institute which offers to young students courses in science. The San Diego Natural History Society maintains an exhibit. We

have also the Archeological Association whose hall is given over to exhibits of the science of man. These are a few of the organized forms of public education carried on outside of the school walls.

With these resources in the city, it became an easy matter to have each association extend its service to the entire county through the avenue of the public schools. The natural history society provides a supervisor of nature study who visits the schools regularly, sends monthly bulletins, arranges nature exhibits and mounted displays and maintains correspondence with the pupils. The zoological institute arranges for transportation of county children to the zoo. The fine arts gallery also arranges for transportation of children to the gallery on one day a month, known as county day.

Children from all over the county go to the gallery to enjoy a specially prepared program. Sometimes an artist paints a picture for them; sometimes an expert craftsman demonstrates his work through the various media, such as pottery,



*Banner School, on the banks of Lake Cuyamaca in San Diego County, California, has utilized its beautiful environment for a pageant depicting the landing of the Pilgrims.*

*The pageant showing the landing of the Pilgrims taught the children a valuable lesson in history and at the same time helped develop their dramatic ability.*



weaving or basketry. The children are guided about the gallery and are taught to see the beauties of the many expressions of art found there. These extra-curricular activities are outside the regular assignment of supervision in the schools and yet they tie up with the work. Thus, the supervisor of art arranges with the fine arts gallery for the visits and plans and such activities as the portfolio contest. The last activity has been carried on for three years and yet interest in it has not begun to wane. One year American artists only were studied. Beautiful pictures were culled from periodicals and other sources. This sometimes called into activity all the members of the home—the aunts, the cousins, the grandmothers—all were interested for the moment in the study of American art. The portfolios made by the individual children and by certain schools as a school project aroused great interest when they were shown to the public at the gallery.

A second year the study was given over to the European artists and the past year pictures of ships were studied. It is easy to see how this activity on the part of the children carries mental enrichment to all persons with whom they come in contact in their search for examples of paintings.

The supervisor of nature study allies his regular work in the schools with the visits to the nature headquarters in Balboa Park. Individual collections made by the children of shells, seeds, wild flowers and stones were cared for in a scholarly, orderly way, properly mounted and labeled and carefully placed in cabinets or containers, all of which inculcated in the child a respect for precision and some knowledge of scientific classification.

The influence of the zoological institute where children regularly meet in classes is felt in some of our rural schools. I have not forgotten the interest shown in the commonplace sow bug by some

children who informed me that this bug is not an insect but belongs to the crustaceans, thus relating him to the aristocratic class of the lobster and the crab. Their drawings of the sow bug showed that they were quite familiar with the facts they were mentioning. Once I saw in a country school a large spider captured on a leaf where the young spiders were emerging from the egg clutch. The children were keenly interested in the phenomenon and were giving it close study that was actually scientific in its attitude.

Other agencies that integrate the work of the school with life itself are the Junior Red Cross, the annual exhibits of pupil activity at the county fair and of course in many schools the local groups of Boy Scouts, Girl Scouts and Camp Fire Girls, organizations that translate definitely to the child his civic obligation and the joy he should take in his civic rights.

One of the interesting activities of our county for several years has been the participation by the children in the school page in one of the local papers. This has held the children so keenly interested that several of the country papers have opened school columns for children, and contributions of school news are made to the local weekly papers. The most outstanding instance of this effort is, however, the school page of the *San Diego Sun*. It is always thrilling for boys and girls to find their names signed to articles that appear in a bona fide public journal.

The physical education program has provided interschool activities that have enriched the social life of the country child. The present enthusiasm for miniature golf courses has been utilized by the physical education director of the county, and here and there throughout the county good courses have been planned and are actually in operation. It is easy to see that this enthusiasm for midget golf can

serve as a motivation in certain phases of the social sciences—history and geography. The need of a knowledge of mathematics in planning courses is demonstrated, not to mention the self-evident opportunity for good coordination of muscles and brain. One school has planned its course to illustrate the establishment of the missions of California. The interest of the children in this has brought about much delving in local lore.

In San Diego County there is infinite variety of scenery, for some schools are in the mountains and others are by the seashore. The children are guided to use the material in their immediate neighborhood in their creative work. For example, in certain sections of the county manzanita wood is found and is used for making baskets or paper cutters and similar articles. Certain districts are near clay deposits, and pottery is made by the children living there. Those living by the coast make collections of sea shells and of sea mosses.

#### *Utilizing the Environment*

Some schools that are especially fortunate in being located in a beautiful environment utilize it as a background for pageantry and for illustrating history studies. One little school situated on the shores of a beautiful mountain lake used its surroundings for a dramatization of the landing of the Pilgrims. At that school December 21 was a momentous occasion. A modern Mary Chilton jumped from the little boat to the rock. She was followed by other children representing Pilgrims, while still others impersonated the native Indians awaiting with curiosity the wayfarers from the deep. These isolated instances serve to show that the schools are trying to open the eyes of the pupils to the richness of their locality and thence to lead them into an interest in the neighboring localities and in knowing what boys and girls in other sections of the county are doing.

One phase of integrating school with life is the Junior Red Cross. International correspondence has developed between some of the schools and schools across the Atlantic. What more definite step could be taken by children toward our great ideal of international understanding and world peace?

The purpose of this article has been to point out that the rural schools in California are pulsing with life interests of the present moment. The radio, the press, the public library, interschool meets and the activities that are countywide have united the children in these mutual interests. The influence is cumulative. Once started on this type of program, it is impossible to revert to the static. Life has become vibrant for all concerned—the pupils, the teachers and the adults.

## Talkie Library May Be Produced for School Use

Great possibilities of sound motion pictures for classroom instruction in the schools of the country were demonstrated in the three-day experiment held at George Washington University, Bess Goodykoontz, assistant commissioner, Office of Education, stated after the final tests were made.

The experiment was sponsored by a large film producing corporation, with the cooperation of the Office of Education and ninety-six graduates of grammar schools from every state except Washington displayed "an amazing interest" during a series of tests.

The tests were made both in respect to the effect of the pictures on the pupils and in respect to the subject matter and method of presentation.

Results of the tests showed that the boys and girls answered correctly on an average nineteen more questions out of fifty on each test after seeing the sound educational pictures than they did before. This is an average gain of 38 per cent. The only other test comparable to this was conducted by Dr. David C. Knowlton in 1928, in which silent film only was used. This experiment showed an average gain of 19 per cent. A comparison of the two tests, therefore, seems to indicate that sound pictures are twice as effective as silent pictures in educational work. The boys and girls were shown five pictures on five subjects, for a total period of two hours and four minutes. The tests were given and judged by an impartial committee appointed by the Government.

The educators met with Miss Goodykoontz and representatives of the film corporation for periodic discussions of the subject matter and the technique of its presentation. Since the tests have shown that talking pictures facilitate the pupils in grasping more readily certain subjects it is expected that the film corporation will set about to produce a talkie library for school use.

## School Districts in North Dakota Not Liable in Bus Accidents

School districts in North Dakota are not liable for injuries arising out of the operation of busses for school children because this is a governmental function and therefore should not carry liability insurance, Harold D. Shaft, assistant attorney general, ruled recently. School boards have the power to require bus drivers to carry liability insurance covering their personal liability, but are not compelled to do so, he held.

# A School That Satisfies Civic as Well as Educational Needs

*The consolidated school described here represents a triumph in architectural planning, every inch of space having been utilized not once but twice to assure a modern building at a moderate price*

By E. WILLIAM MARTIN, A.I.A., Architect, Wilmington, Del.

**I**N DESIGNING modern schools for rural sections or small towns, the architect is confronted with the difficult problem of caring for the civic and educational needs of the community in one building.

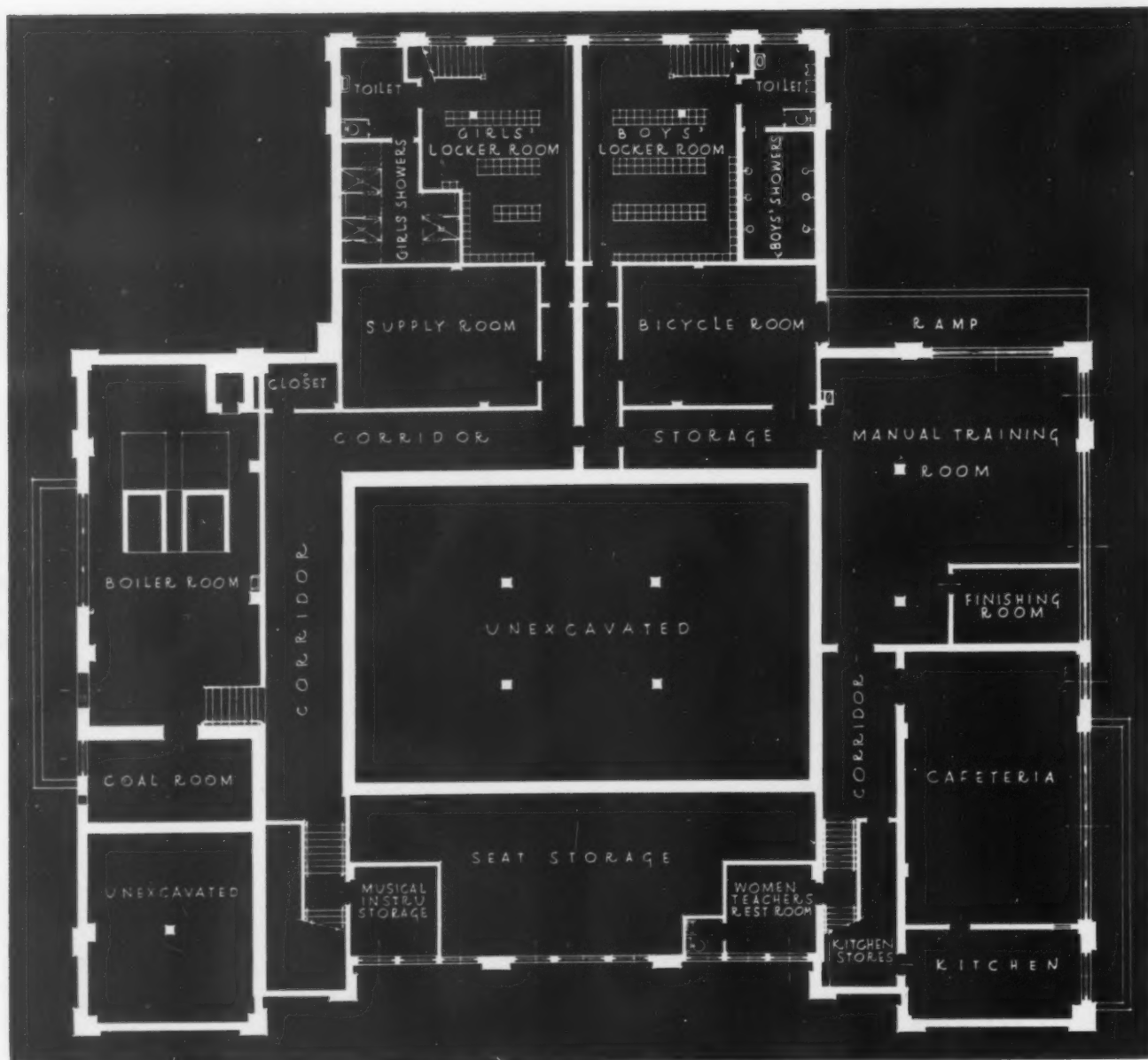
Many educators are of the opinion that the civic requirements of a community should not be allowed in any way to modify the architectural scheme as dictated by the actual needs of the educational program of the school. They hold,

with a great deal of reason, that the auditorium of a school should be planned with an eye only to the needs of the school as a school and not to its use as a social center, and that the funds spent in providing an auditorium adequate for accommodating a civic gathering would better be spent in enlarging or better equipping the actual school plant.

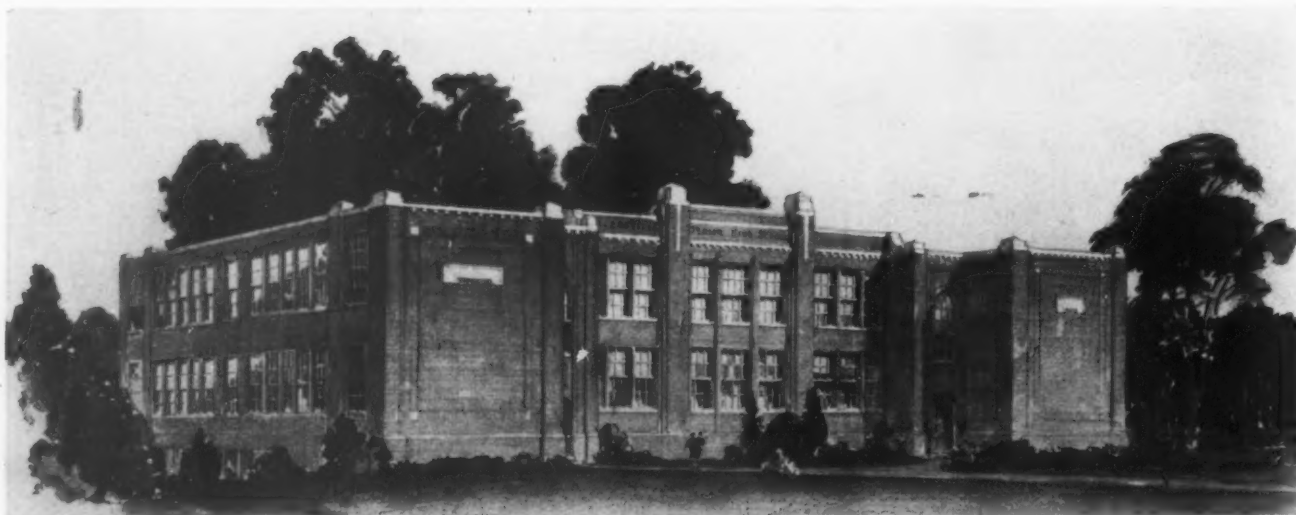
On the other hand, the school, which in many cases is the social and civic as well as the educa-



*A large well lighted portion of the basement has been given over to the manual training department, consisting of a shop and finishing room.*



*Basement space has been efficiently utilized, as can be seen from the plan above. The exterior of the new school, pictured below, follows simple lines, depending on the interesting brickwork and stonework for decoration.*

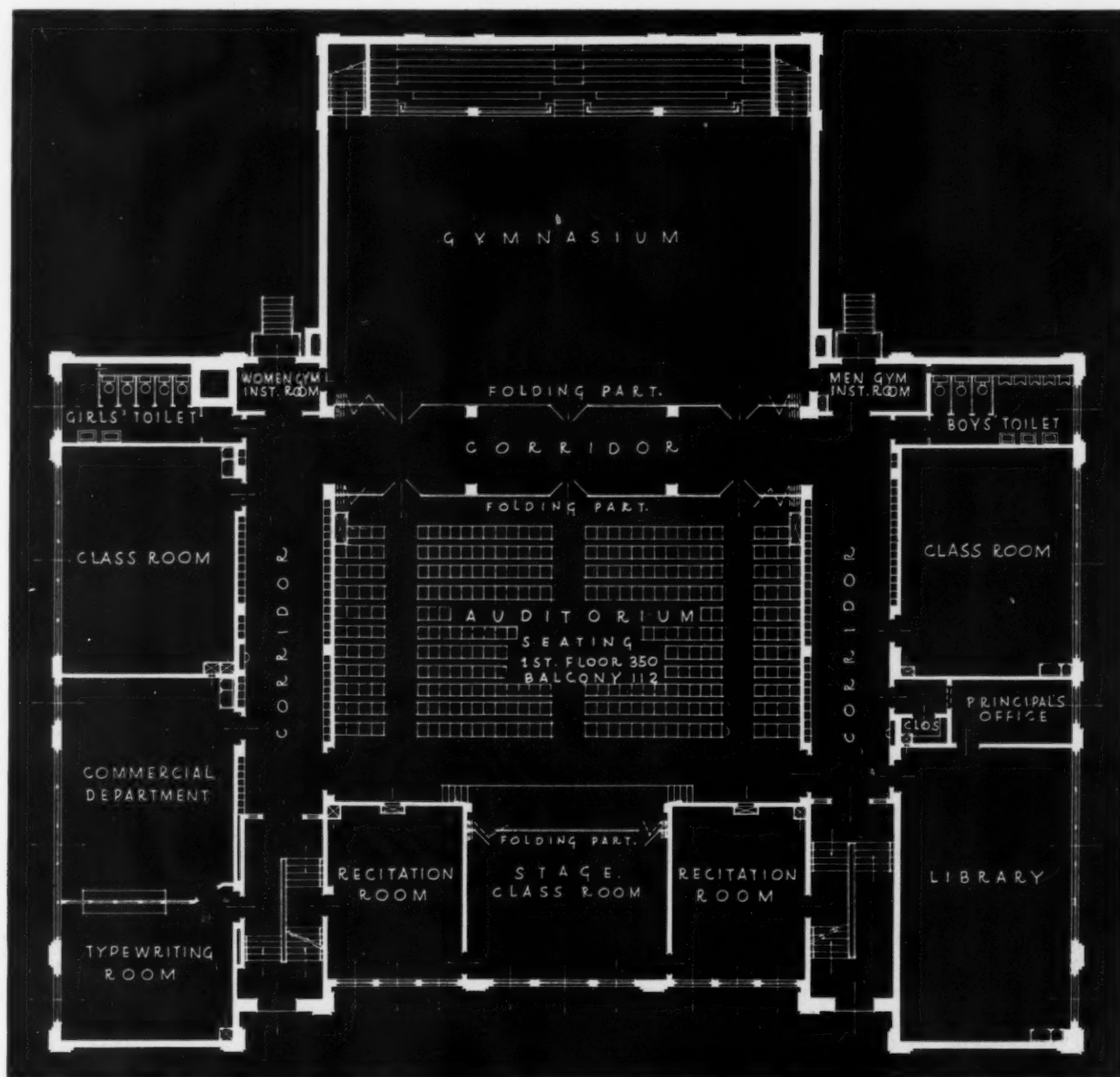


tional center of the community, is the only building that contains any room suitable for public gatherings.

District school boards are therefore simply reflecting the general wishes of the community when they demand that the architect shall give them, even though some other part of the school may have to be slighted, an auditorium of considerable seating capacity. After all, the question as to whether a school shall be erected in any community is usually decided by a popular vote, and the community therefore usually gets what it demands. In the case of the consolidation of two or more school districts, the problem is intensified because the needs of all these communities must be satisfied if possible, and the architect is some-

times sorely pressed to provide sufficient accommodation with the funds available.

Such a problem was the designing of a new senior high school building for the consolidated school districts of Sellersville and Perkasie, Bucks County, Pennsylvania, which at first seemed almost impossible of solution. The requirements were: accommodations for 350 pupils including classrooms, a general shop, a general science laboratory, a home economics section, a commercial department, a library, a cafeteria, a bicycle room, a gymnasium, locker rooms and an auditorium which would not only care for the normal needs of the school but which could on occasion be used for community gatherings for which a capacity of at least 1,000 would be necessary. Since the amount



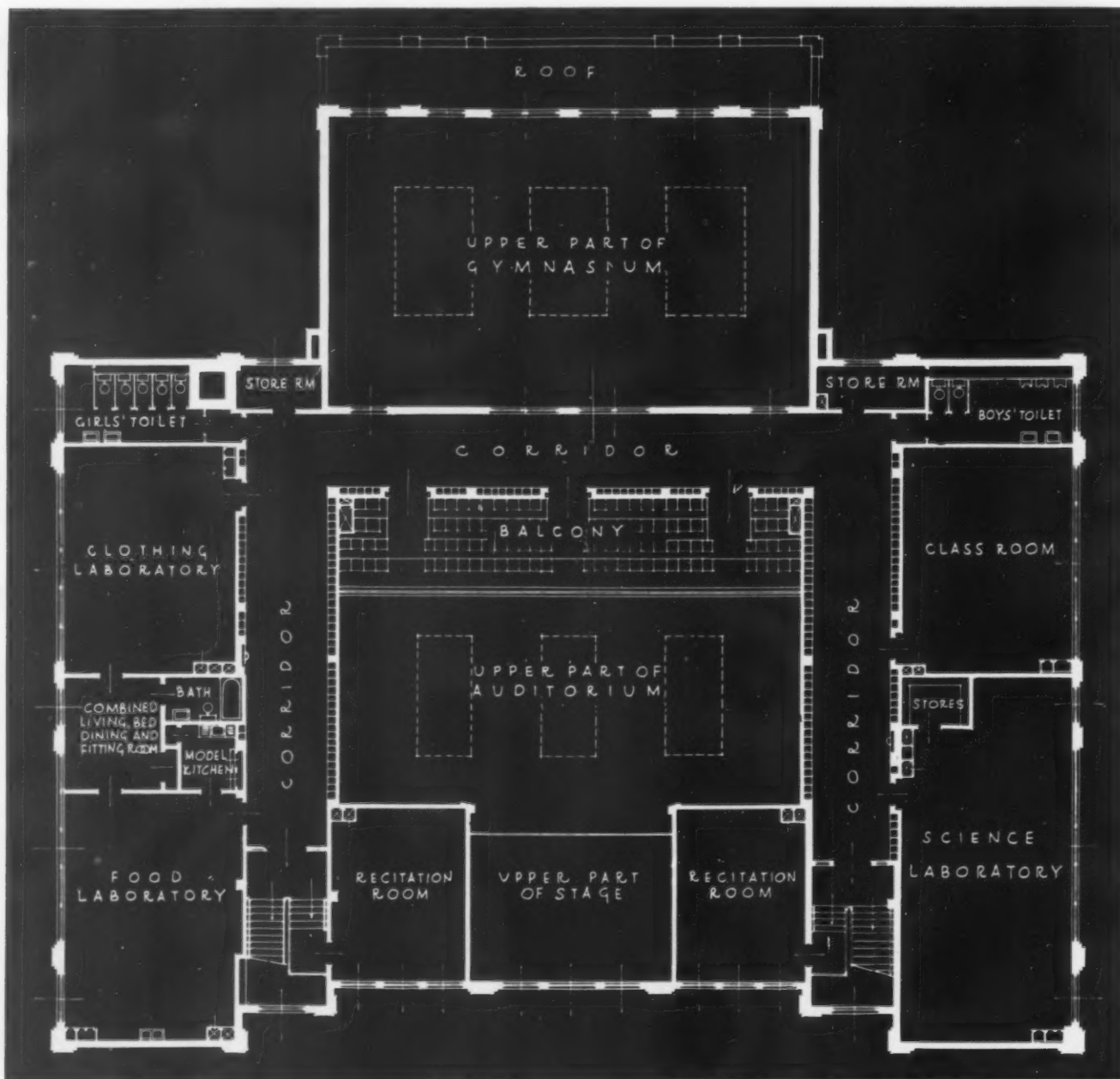
From this plan of the first floor one can see the clever arrangement of the auditorium and gymnasium, which can be thrown together by means of folding doors.

of money available was extremely limited, the problem of obtaining a large auditorium and at the same time restricting the building to a small cubage was the one that determined, after much study, the plan finally adopted.

From the beginning it was thought inadvisable to have a combined gymnasium and auditorium, which is extremely unsatisfactory not only be-

necting the gymnasium and the auditorium by a corridor, on each side of which are folding doors running the full width of the auditorium and the full length of the gymnasium.

The advantages of such an arrangement and the flexibility it provides can easily be seen. When the auditorium is used for ordinary school purposes, both sets of folding doors are kept closed,



*Connecting the clothing and food laboratories on the second floor is a model apartment, for teaching home craft.*

cause of the labor required in removing, storing and replacing chairs, but also because of the damage an auditorium suffers when it is used for gymnasium purposes. The idea of a stage gymnasium was also discarded because such a scheme did nothing toward providing an auditorium that could occasionally be used to accommodate a large audience. The problem was finally solved by con-

necting the first floor and the balcony of the auditorium itself being sufficient to accommodate 460 pupils. If a small additional space is desired in the auditorium, the folding doors forming the rear wall of the auditorium can be opened, the gymnasium folding doors remaining closed, and the capacity increased to 560. In the event of a large public gathering, both sets of folding doors can be

opened and the entire area of the corridor and the gymnasium, including the permanent grandstand in the gymnasium, used. The capacity is then increased to over 1,000, and a person sitting on the top row of the gymnasium grandstand can see to a height of twelve feet up the proscenium arch.

The seating capacity in the gymnasium is also flexible. If it is desired to seat only a few spectators, the grandstand will be adequate. If, however, for some especially important event, additional seating is necessary, the gymnasium folding doors can be opened, and the auditorium folding doors left closed. Seats are then placed in the corridor facing the gymnasium. In this way the seating capacity in the gymnasium is increased by 100. The second floor corridor flanking the gymnasium could also have been constructed as a gymnasium balcony, but it was thought inadvisable to use the second floor of the school for spectator purposes. Additional chairs for use when the corridor or the gymnasium is used in connection with the auditorium are stored underneath the stage.

In order to utilize every available inch of cubage for classroom purposes, folding doors are also provided on the stage, which are ordinarily kept closed, and that part of the stage behind them is used as a classroom. If more stage space is required, the folding doors are opened, the furniture removed temporarily from the classroom, and a good sized stage is provided. The rooms on each side of the stage are used ordinarily as recitation rooms, but they can also be used as dressing rooms if a school play or a concert is given. Other instances of double utilization are the emergency exits at the rear ends of the side corridors which are used as gymnasium instructors' rooms and which provide ample space for a desk and a good view of the gymnasium floor.

The cafeteria and kitchen were placed in the basement so that no space suitable for classrooms would be sacrificed. The basement contains also a bicycle room approached by a concrete ramp from grade.

#### *Providing for Future Additions*

The matter of planning a school so that future extensions can be added with a minimum of difficulty is one that is sometimes overlooked, so that when increased enrollment makes additions necessary, the architect finds that he has to rearrange certain portions of the building in order to obtain effective circulation for the new wings. In this case the building was planned so that the corridors and classrooms on each side of the building can be extended to the rear without excluding light or air from the gymnasium or the locker rooms. The end walls of the gymnasium will form the inside

walls of the new corridors if any addition becomes necessary in the future.

The exterior of the building, which is of buff brick, is slightly modern in character with emphasis on the vertical lines. As little money as possible was spent on stone trimmings, the architectural effect being produced by a study of proportions and the treatment of the brickwork itself.

The cost of the building was as follows:

General contract	\$94,000.00
Plumbing	8,496.00
Heating and ventilation	26,140.00
Electrical	7,500.00
Total cost	\$136,136.00
Cubic contents	500,449 cubic feet
Cost per cubic foot	\$0.27

### The School Plan as Seen by an Architect

The success of a school building depends almost entirely on how skillfully the architect has developed his plan, according to William B. Ittner, architect, St. Louis. For this particular reason and for a number of less important reasons, the school architect should be called in as early as possible whenever a new building or a building program is proposed. The more general and detailed information he has, the better he can plan and design.

The architect's plan should be the means whereby a superintendent or principal may visualize his school in operation, Mr. Ittner emphasizes. It will reveal the extent of flexibility, the space utilization, the relationship of rooms and departments, the circulation and egress facilities, the safety, lighting, sanitation and air conditioning. By means of the plan, cubical content can be determined and the cost estimated. This method is the only reliable one in computing costs. The plan will suggest the design or architecture of the school. There is such a thing as a beautiful plan—the result of much thought and study of the individual problem. The natural outcome of a beautiful plan is a beautiful exterior.

Rules, regulations, codes and standardization count little in the development of a real plan, Mr. Ittner says. They are usually hindrances and almost always add needlessly to the cost of buildings. A school architect who knows his business has very little need for rules. All he needs is the information the superintendent, school board and principal can give him. He needs to know the size and character of the school, the educational program and the type of organization.

# Improving Janitorial Service in the Schools of Ohio

*Fifty out of the state's eighty-eight counties have adopted uniform rules for their janitors which assure better kept buildings and grounds at all times*

GREATER importance is being attached to the duties of janitors of school buildings because it has been realized that building maintenance is something more than sweeping floors and washing windows. To ensure the greatest economy in connection with this service, the college of education, Ohio State University, has formulated uniform rules for janitors. The work was done jointly by Dr. T. C. Holy, bureau of educational research, college of education, and E. O. Braught, equipment auditor, Ohio State Department of Education. It is interesting to know that fifty out of the eighty-eight counties in Ohio have adopted these rules, which are presented here in practically the same form they have been sent out to the various counties.

## *Care of Building and Furniture*

1. Each head janitor shall be responsible for the cleanly condition of his building, and he must be observant of dirt, dust and bad odors and see they are removed without having special attention constantly called thereto.

2. In order that the school buildings may be properly cleaned, janitors are to be permitted by the chief executive to begin their schoolroom cleaning not later than twenty minutes after the close of the afternoon session.

3. Under no circumstances is there to be any sweeping done while the schools are in session, with the exception of corridors and stairs, except by permission of the principal of the school.

4. Assembly halls must be kept in as neat condition as classrooms.

5. All woodwork, moldings, window sills, wainscoting, handrails, radiators, pianos, pictures, casts, shelves, chalk troughs, principals' desks, teachers' desks, pupils' seats and desks, chairs, furniture and apparatus of every description must be thoroughly dusted each school day.

6. Every school building must be thoroughly cleaned twice each year as follows:

During the summer and Christmas vacations,

the engineers and janitors shall thoroughly brush all walls, ceilings and window shades of their respective buildings before proceeding to wash the woodwork, which shall include oil painted walls, dadoes, baseboards, wainscoting, doors, frames, sash and all painted and varnished woodwork. They shall thoroughly wash with water the glass in all windows, transoms and furniture, and dust all picture moldings and the fronts and backs of all pictures. The floors of all entries, halls, passages, stairways, corridors and all rooms occupied for school purposes and landings shall first be well scrubbed with scrub brushes and then mopped.

7. All rooms not in general use shall be kept clean and tidy at all times.

8. Chairs and desks shall be washed at the time the general cleaning is done.

9. Chairs and desks which have been occupied by pupils who have contracted a contagious disease shall at once be thoroughly washed with a disinfectant.

10. Manual training rooms shall be thoroughly swept and dusted each day after the rooms are used, and all shavings, sawdust and rubbish must be removed.

11. The cooking room, including the pantry and dining rooms, shall be scrubbed once every week, and shall be swept and dusted, and the garbage bucket emptied and cleaned each day that the room is used.

12. Extra precaution shall be taken in cleaning around the radiators, and in seeing that rags, paper or any other material of an inflammable nature does not come in contact with the radiators by being on or behind them.

13. In buildings heated by hot air furnaces where floor registers are used, the register boxes must be cleaned at least once a week and oftener if necessary.

14. Doors and door knobs of schoolrooms and handrails and banisters of stairs shall be washed at least twice each month with a disinfectant.

15. Janitors shall keep gas and electric fixtures clean, removing dust and dirt from the interior of all reflectors at least once each month.

16. Janitors are required to see that all blackboard erasers are properly cleaned as often as necessary.

17. Janitors should wash all blackboards and clean all chalk troughs every Saturday.

18. Every precaution shall be taken in cold weather to prevent all pipes and other apparatus from freezing and to see that all plumbing fixtures are drained during freezing weather.

19. Janitors shall keep the fire escapes clear and clean at all times.

20. Floors paved with marble, slate, cement, terrazzo or other material shall be washed as frequently as may be necessary to keep them clean.

21. The janitor shall open the building only to persons who have the permission of the head of the school.

22. The janitor shall arrange a schedule with the head of the school for opening and closing the school buildings on regular school days.

23. The use of alcohol, gasoline or coal oil stoves is not to be allowed for any purpose whatsoever, except when used by teachers for the instruction of pupils.

24. The janitor is to use extraordinary precautions against fire and he is to become familiar with the use and care of fire extinguishers.

#### *Heating and Ventilating*

1. All fresh air rooms or intakes must be kept clean and neat and should never be used as storage rooms.

2. All fans and ventilating apparatus should be in full operation not later than 8 a.m., on each school day and they should be operated until school is dismissed.

3. The temperature of all rooms to be occupied for school purposes should be 70° F. at 8:30 a.m. each school day and should be maintained at between 68° and 70° throughout the school day. The heating plant must be started as early as necessary to ensure these conditions.

4. Failure of any part of the heating plant should be reported to the head of the school.

5. During the cold weather the temperature of the school should never go below 40° F., Sundays and holidays included.

6. Even temperature or pressure should be maintained on the furnace or boiler.

7. The side liners in the fire box of the furnace must never be covered.

8. The fires must be cleaned once each day.

9. Ashes must not be wet while they are in the furnace.

10. Ashes must be removed once each day, all ashes to be removed from the ashpit each time.

11. The janitor is expected to obtain complete consumption of all the fuel used.

12. Smoke breeching must be thoroughly cleaned inside and out immediately at the close of the firing season.

13. After smoke breechings are cleaned they are to be covered with a suitable paint.

14. The entire fire box and interior of the boiler or heater must be cleaned at the close of the firing season.

15. Janitors should clean the base of the smoke flue at the end of the firing season.

16. Ashpits and firing doors on fire boxes should remain open throughout the season when the plant is not in use.

17. Janitors must keep heating equipment clean at all times.

#### *Sanitation and Toilets*

1. The urinal troughs and the floors around them shall be flushed with a hose after every recess period.

2. All closet seats shall be kept dry and the bowls flushed during school sessions.

3. The urinal troughs, seats of the closets, fixtures and floors shall be washed and disinfected every day after school sessions, and tanks in connection with water-closets must be kept free from mud and other sediment.

4. The water-closet bowls and urinals and all partitions to and backs of the urinals shall be cleaned at least once each week with a disinfectant.

5. At all times a sufficient supply of toilet paper shall be kept in each toilet room, and enough towels wherever there is a lavatory.

6. All toilet paper and towel racks out of order must be reported at once.

7. In extremely cold weather, after the water has been shut off from the building, the toilet and urinal tanks must be drained, all faucets opened and the toilet bowls and the traps on the fixtures filled with a solution of salt water.

8. All slop sinks, washbowls and other fixtures throughout the building shall be cleaned every school day.

9. Special attention is to be given to the flow of water in urinals, drinking fountains and other outlets, and all leaks should be promptly stopped. The water for urinals and drinking fountains should be turned off as soon as school is dismissed.

10. All refuse matter, excelsior, waste paper, oil waste, oily and dirty rags, sweepings, rubbish, vegetable matter, animal matter and all inflammable or combustible materials shall be collected

and placed in receptacles provided for that purpose, and then burned or removed from the building each day.

#### *Grounds and Outhouses*

1. Janitors shall see that no grass is permitted to grow in the crevices of paved yards and walks and that no weeds are allowed to grow.

2. All planted ground shall be weeded regularly during the entire season and the earth around shrubbery, plants and garden plats, spaded up as often as necessary and at least once each session, and the grass on all school lawns and boulevards shall be cut, trimmed and raked when necessary.

3. All sidewalks, pavements and yards shall be swept as often as is required to keep them in good condition and at least twice each week.

4. All outhouses, areas, light courts, sidewalks, gutters, playgrounds, grass plats, lawns, store-rooms, boiler rooms, cellars, attics and roofs shall be kept in a neat and tidy condition free from all rubbish, stones, litter, pieces of paper, and other waste matter of every description, and shall be clean and in order at all times. The janitor is to allow no accumulation of paper, wood, ashes or refuse of any kind therein or thereon. A tour of inspection for the observance of these conditions shall be made at least once every day.

5. Janitors shall sprinkle sand, ashes or salt upon sidewalks when they are in a slippery condition. A supply of sand, ashes or salt for this purpose is to be kept on hand.

#### *Personal Conduct*

1. No smoking or chewing of tobacco in or about the building or premises will be allowed.

2. The use of intoxicants while in or about the school or premises is strictly prohibited.

3. Janitors shall be responsible to the head of the school.

4. The janitor should be consulted by the head of the school on matters pertaining to the duties of the janitor and shall be treated as an official.

5. The janitor must cooperate with the principal and teachers at all times and must treat the pupils with courtesy.

### P. T. A. Groups and Their Relation to Adult Education

That parent-teacher associations ought to be channels for the dissemination of information on educational policies, is the contention of Charles H. Judd, director, school of education, University of Chicago.

Parent-teacher associations should be centers for a definite type of adult education, he believes. Boards of education ought to organize adult education with regard to educational policies as a regular part of the school programs of their districts. Lectures and discussions should be provided on such topics as the unique characteristics of the American school system, educational costs, the relation of various governmental agencies to educational operations, scientific studies of education and psychological studies of emotional and intellectual life.

If such topics were fully and expertly presented, the public would become at least as intelligent on school problems as it is on politics. At present thousands of well meaning citizens are annually elected or appointed to positions on school boards who have no more understanding of education than that gained in their personal experiences as pupils in school.

If the public were well informed on school problems and policies, no one could be made a member of a school board who did not exhibit intelligence sufficient to establish confidence on the part of informed citizens.

### Major Trends in the Development of Teacher Salary Schedules

That five major trends characterized the development of teacher salary schedules during the last decade, has been pointed out by Joy Elmer Morgan, director of research, National Education Association.

These he enumerates as follows: (1) a growing tendency to bring the principle of planning into the scheduling of teachers' salaries; (2) schedules that increasingly emphasize training as a basis for salary advancement; (3) a strong trend toward increasing the period over which salary increases continue, thus providing a substantial maximum for teachers of long and successful experience; (4) some tendency to make teaching efficiency as measured by merit ratings and in other ways one of the factors considered in advancing teachers to the higher salaries; (5) scheduling which has been characterized by the tendency to increase teachers' salaries toward a professional level.

Most of these tendencies are desirable ones. All are likely to continue with the possible exception of the fifth, the continuance of which is dependent upon a number of factors, the most important of which is the formulation of planned programs for the better balancing of teacher supply and demand.



## Going to School in Hawaii

*McKinley High School, Honolulu, which serves nearly 3,000 pupils of diverse races and religions, is now the scene of a most interesting educational experiment*

By FREDERICK E. BOLTON, Professor of Education, University of Washington,\*  
and MILES E. CARY, Principal, McKinley High School, Honolulu, Hawaii

IN NO other spot in the world is the mingling of the races so striking as in Hawaii, the "Paradise of the Pacific." In some other countries there are diverse colors and diverse religions, but one class is usually dominant and all the rest are classed as aliens.

Hawaii's population of 368,336 in 1930 consisted of 22,636 native Hawaiians, 15,632 Caucasian Hawaiians, 12,592 Asiatic Hawaiians, 27,588 Portuguese, 6,671 Porto Ricans, 1,219 Spanish, 44,895 designated as "other" Caucasians, 27,179 Chinese, 139,631 Japanese, 6,461 Koreans, 63,052 Filipinos and 780 "others" of such a mongrel type as to be

unclassifiable. It will thus be seen that although Hawaii is a territory of the United States and not a dependency or a ward as are the Philippines, Cuba, Porto Rico and the Virgin Islands, only a small proportion of its population are pure whites and even fewer are of American nativity. The Japanese outnumber all others. The Buddhist religion in Hawaii has 137,000 adherents to its faith.

To weld together these diverse races into a harmonious, progressive, American commonwealth is the stupendous task confronting the schools in the Hawaiian Territory. Truly here is a genuine "American melting pot." According to Dr. William H. Kilpatrick, Teachers College, Columbia University, "Hawaii's educational program is the

\*Doctor Bolton was visiting professor in the University of Hawaii during the summer session of 1930 and while there gathered the factual data for this article.

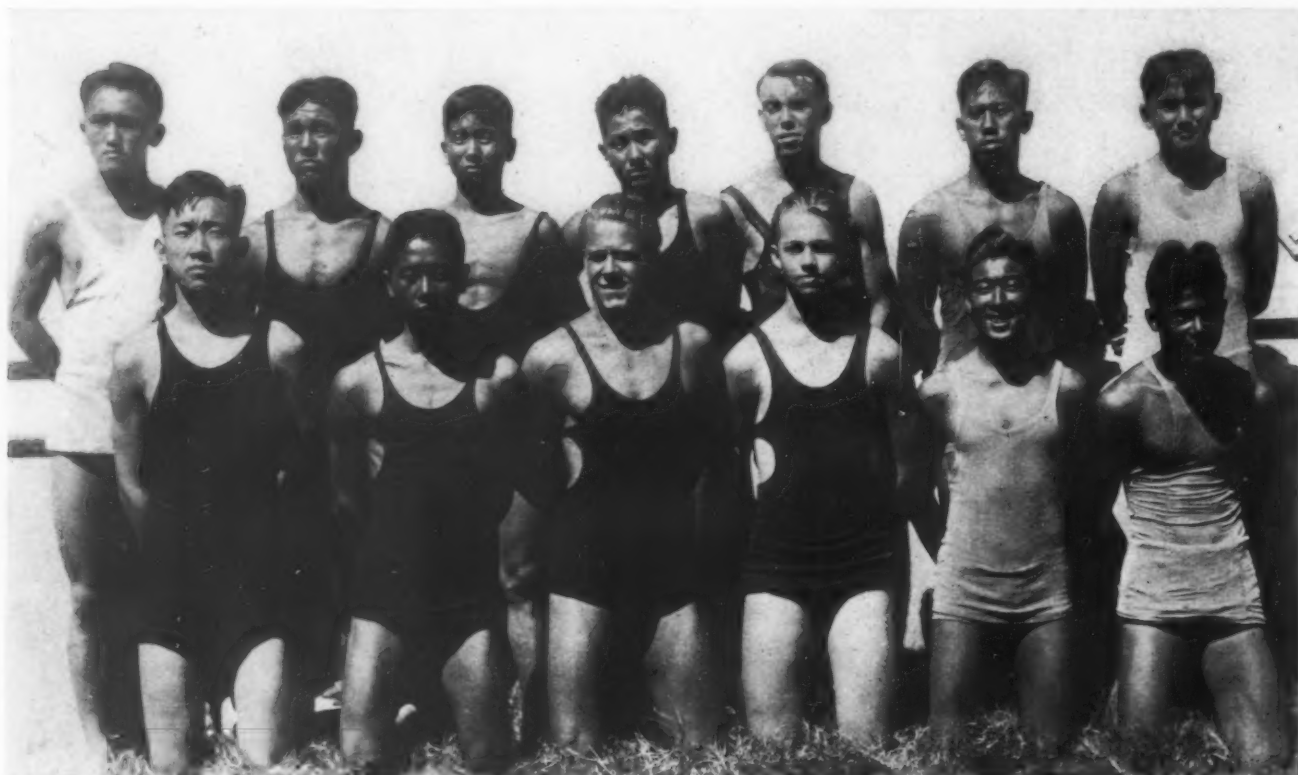
most interesting experiment under the American flag."

The schools of the entire territory are well graded and excellently supervised. The territorial superintendent, Will C. Crawford, is also city superintendent of schools in Honolulu which comprises more than a third of the entire population (137,582) of the territory. There are no other city superintendents in the territory. Each island has a commissioner and one or more supervising principals who are really assistant superintendents under the territorial superintendent.

In the main, the schools of the territory com-

entrance to the high school and he is held in great reverence by the pupils and by the inhabitants of the island generally.

This school had an enrollment of 2,582 in the three senior grades at the opening in September, 1930. The year's enrollment was augmented by about 200 during the second semester. The Roosevelt High School in Honolulu was opened this year and is designed for pupils who need less assistance in mastering language difficulties. They do not come from a special section of the city but rather from homes where the social background has been conducive to the mastery of the English language.



*Because of Honolulu's climate the pupils can participate in aquatic sports throughout the entire year.*

prise elementary schools of six years, junior high schools of three years and senior high schools of three years. There are fifteen junior high schools and nine senior high schools, five of the junior high schools and two of the senior high schools being in Honolulu.

#### *A Genuine Democracy*

The McKinley High School is the largest school in the territory. It was named in honor of William McKinley who was president of the United States at the time Hawaii voted to ask the United States to take over the Hawaiian Islands. Hawaii had been an independent kingdom until the revolution of 1893, and from that date until 1898 was under the protectorate of the United States. A large statue of President McKinley adorns the front

It is to be considered a means of more efficient adjustment rather than a mark of distinction. Attendance there is voluntary but it is advised by the junior high school principals in the schools the pupils have attended. This school includes grades seven to twelve. In the last three grades, 245 pupils were in attendance at the close of the fall term, 1930.

In the McKinley High School, as in the population as a whole, there is a great diversity of lineage. All classes of citizens in Honolulu believe in having their children receive the benefits of education. Persistence in school in Honolulu is almost as great as in cities on the mainland in the United States. Consequently there are about the same percentages of each race in the senior high school as there are in the population of the territory.



*Gilbert and Sullivan in Hawaii. McKinley High School pupils present "Pinafore."*

In Honolulu in December, 1930, there were 3,624 pupils enrolled in the first grade. In the sixth grade, the last year of the elementary school, there were 2,749. Few dropped out then, and 2,578 were found in the seventh grade, the first junior high school year. The ninth grade, the last year of the junior high, contained 2,084, and 1,086 were back in the first high school year. The twelfth grade contained 772, or a little more than one-fifth as many as were in the first grade. In the United States as a whole only about one in seven of the first grades remain through the twelfth grades. Consequently the Honolulu record is better than that in the United States.

Without doubt there is as complete democracy in the student group of McKinley High School as

there is in any high school in the world. The pupils are organized as the "Student Body Government of the McKinley High School." The constitution is as elaborate as that of any high school on the mainland and the annual handbook resembles a college student's handbook.

All pupils enrolled in the school are members of the organization. Besides the usual officers, consisting of a president, a vice-president, a secretary and a treasurer, provision is made for an executive council of sixteen members and a representative assembly consisting of all members of the executive council, one representative from each record room, the chairmen of all standing committees and one representative for each student organization. The principal of the school and



*These members of the school's parent-teacher association represent five racial groups—Hawaiian, Portuguese, Chinese, Japanese and Anglo-Saxon.*

three faculty class advisers are ex-officio members of the executive council, but all other officers and representatives are elected by ballot by the pupils. The principal has a veto power in all cases but he rarely exercises it.

No hereditary succession is found in the offices in the McKinley High School student group. Ability, leadership, personal qualities—and doubtless political strategy, as everywhere—determine the selections to the much coveted honors.

Indicative of the democracy is the fact that the president of the student group is a Chinese boy, Harry Y. S. Mau; the vice-president, Hoouluni Burns, a Hawaiian-Anglo-Saxon girl; the treasurer, Wilfred Chang, a Chinese boy; the secretary, a Hawaiian-Chinese, Francis M. F. Ching; the clerk, Richard Kawamoto, a Japanese boy; the sheriff, George Sue, a Chinese. The editor of the student paper, the *Pinion*, is Richard Weinberg, a Germanic descendant and the business manager is a Japanese, Edward Mitsukado. Last year the vice-president was a white girl and at the beginning of this year, Florence Yap, a Chinese girl, held the position.

#### *Fostering Good Citizenship*

Citizenship as the highest outcome of school life is ever held before the pupils. The teachers believe that the entire school organization should contribute to the development of attitudes of good citizenship and that the various activities offer much opportunity for participation in cooperative enterprises and in the manifestation of social attitudes toward each other and toward duly constituted group organizations. In addition to these, they aim to have the formal work of the school emphasize the regularity of good habits, courtesy, ami-

ability, fidelity, duty and purposefulness. The subjects of literature, history, civics, physical education and biology are presented in such a way as to help interpret the best ideals in civic and social life. Talks at the general assembly and individual counseling by faculty advisers all supplement and reinforce the opportunities for the practice of good citizenship.

#### *How the Pupils Cooperate*

The general pupil reaction is expressed in the rules voted for the government of the school and also in the quotations in the handbook regarding the "Importance of Character Development." The rules read as follows:

"Every pupil knows that a city must have laws in order to regulate the activities of its citizens. A few persons have a wrong attitude towards laws because they feel that laws interfere with their liberty.

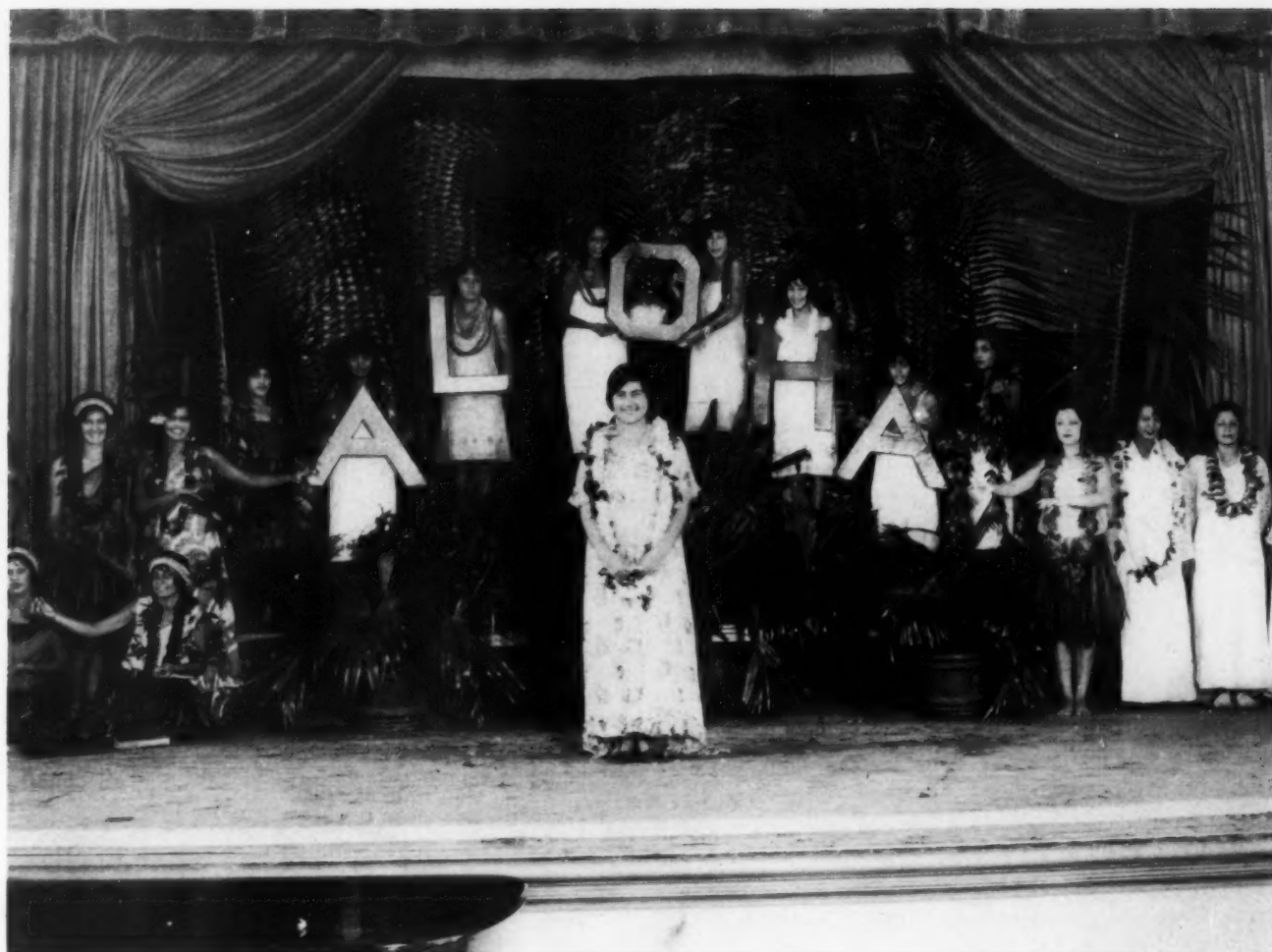
"The vast majority of the citizens of a community know that without rules and regulations a modern community would soon be in a state of savagery.

"So it is with our high school. We have about 2,700 pupils in this school and we have almost a hundred teachers. High school pupils are not watched so closely as are elementary school pupils. There are many opportunities for high school pupils to be careless and to do things that interfere with their own progress and injure the character of their school.

"It is impossible for teachers to keep a close watch over pupils, and it would not be wise to do so, even if it were possible. We learn to do a thing by actually doing it, just so we learn to be worthy citizens by carrying out activities in citizenship.



*Football games at McKinley High School are well attended.*



*Native pupils in native costumes, members of the Hawaiian Club, present a pageant.*

"Now every good citizen of McKinley wants his school to grow and prosper. To accomplish this, pupils and teachers must cooperate.

"We shall be making a splendid start this year if every pupil will resolve within his or her own mind to help the teachers and school by obeying the few simple rules of the school.

#### *Essential Rules and Regulations*

"Over a period of years the following rules and regulations have been found to be absolutely essential to the welfare and progress of McKinley High School:

"1. Every pupil must be in a classroom or reading room during six regular periods of the school day. Cutting of classes is prohibited.

"2. A special program must have the approval of the adviser.

"3. Loafing during the school day will not be tolerated. School time is work time.

"4. No pupil may leave the school grounds between the hours of 7:30 and 11:45 a.m. and 12:30 and 2:20 p.m., without special permission from the adviser.

"5. Tardiness must be avoided.

"6. In order to drop a subject or change a class the pupil must first obtain the approval of the proper department head.

"7. A pupil who willfully violates the rules of the school will be put on probation. If the offense is repeated the pupil may be dropped from school as an undesirable citizen.

"8. The good name of our school demands that pupils be orderly and attentive during assemblies.

"9. Rowdiness about the school cannot be tolerated.

"10. Pupils must not loiter about the school after 2:20 p.m.

"Every pupil who is really interested in McKinley must recognize that all of the foregoing rules are important."

#### *A Code of Honor for Every Pupil*

All the studies and activities of McKinley High School are planned with the idea of making good citizens of its pupils. Good citizens must be men and women of good character, but character cannot be developed haphazardly. If the pupils are to control the building of their character, they must know something about character formation

and order their conduct in the light of this knowledge.

Since character is made up largely of life habits, in order to develop good habits pupils must begin with right ideals, because in a very real sense their ideals dominate their actions. McKinley has provided its pupils with six worthy ideals as a basis for character building. They are found in the Code of Honor, which every pupil is expected to learn and practice, in order to become a worthy member of the student group.

#### *Counsel of Elders Is Welcomed*

A surprisingly large number of citizens from the governor down to the humblest patron manifest a deep interest in the schools. This is evidenced by visits to the school, by membership in the Parent-Teacher Association, by articles that appear in the press and by whole-hearted cooperation in keeping the children in school and by encouraging the work in manifold ways. The daily press devotes much space to school policies and activities. The school paper, the *Pinion*, is a model. While it naturally plays up athletics and other adolescent activities and has occasional youthful jokes, the tone is distinctly serious and evidences a highly commendable spirit of fine citizenry.

The citizenship regulations as quoted from the handbook are the outcome of pupil deliberations—under guidance, to be sure. That they welcome the counsel of their elders is indicated by the inclusion in the handbook of several letters from representative adult citizens.

In the general life of the school the greatest democracy exists. Once each year there is a dance for the entire student group. This is a cosmopolitan affair and indeed a most democratic one. No racial distinctions are shown for no racial prejudice is felt. Everyone attends and takes part indiscriminately. In the various school clubs the members belong to diverse racial groups. The objective of the clubs and not racial lines determines the membership of the clubs.

#### *How the Graduates Are Placed*

Not only are jazz and slapstick comedy presented but also many classic plays and musical entertainments are given. Many dramatic entertainments are given each year by various student organizations. Concerts consisting of vocal and instrumental music are of frequent occurrence. The dramatic and musical events are often of a high order. Debating is popular and is encouraged by the townspeople and the press as well as by the school. Many practical civic questions are debated. The *Honolulu Advertiser* sponsored an interisland debate on the topic "Resolved, that the

young people should plan their life work in Hawaii." Oratory is also sponsored by some of the school clubs.

Like any large high school on the mainland the McKinley High School has a wide range of extra-curricular activities. These are largely managed by the pupils themselves. The activities include many forms of athletics. The pupils take high rank in baseball, track and especially in aquatic events. The new facilities include an outdoor swimming pool in the real ocean on the famous Waikiki beach, which, of course, is available every day in the year.

The Parent-Teacher Association maintains a strong and democratic organization. It is extremely helpful in building and maintaining valuable community attitudes toward education in general and toward McKinley High School in particular.

Probably no other school system in the world is exerting greater effort to make education functional. Because of the small number of industries on the islands and racial prejudices on the mainland only a limited number of occupations are open to the graduates of the schools in Hawaii. The main industries in the territory are agricultural, connected with the production of pineapples and sugar. High school graduates have not gone to the plantations in any considerable numbers. The small stores employ some, the hotels, laundries, street railways, government clerkships, domestic service and janitorial situations give occupation to others. A few become lawyers, doctors, dentists, druggists and still more become teachers. But the saturation point seems to have been reached in the more desirable occupations and grave concern has developed regarding the future.

#### *New Plan Now in Effect*

A large committee of the Territorial Teachers' Association has been studying the problem carefully for some time. This group gave a complete and significant report in December, 1930. Governor Judd also appointed a committee to study the objectives and policies in the territorial education. The Hawaii Bureau of Governmental Research also employed Dr. Charles A. Prosser, Dunwoodie Institute, Minneapolis, to make a survey of the whole problem. His report was given in February, 1931.

The governor's committee recommended that attendance for eight years of elementary school be compulsory, and that the compulsory school age be left as at present; that a ninth year of school attendance be optional, irrespective of the qualifications for admission to the senior high school. It further recommended that beginning with Sep-

tember, 1931, and for five years thereafter admission to full-time academic senior high schools be restricted to those who have shown distinct capacity for that type of education and that the tenth grade enrollment shall not exceed the number in that grade for the previous year. It recommended that the number of bachelor's degrees be not increased during the next five years. It sug-

activities and needs of the pupils. These classes in the core studies will meet approximately two hours daily. In general the problems studied will have to do with (1) vocations, (2) home membership, (3) play, (4) health and mental hygiene, (5) citizenship, (6) improvement of fundamental processes and (7) essentials of the good life.

Each pupil will be encouraged to participate in



*A vocational class in cafeteria management prepares a meal for fellow pupils.*

gested that the school activities be so arranged that chief attention be given to those whose systematic schooling ends at or before the end of the senior high school period.

On the basis of the studies that have been made regarding the territorial problems and through the independent initiative of the McKinley High School faculty, a new plan was launched in the McKinley High School in September, 1931. The curriculum henceforth will be largely individual and built up around a so-called "core" study. The core studies will be based upon the out-of-school

the useful work of the community along with his work at school. The school will endeavor to help the boy or girl to perform those useful tasks increasingly better. Pupils will be encouraged to study vital problems they are actually facing in the real out-of-school world instead of academic problems and subject matter. There will be no specific requirements for graduation and consequently the pupils will study those things that it is believed will be of greatest use in their daily living. Considerable flexibility will be allowed in making each individual program.

It is expected that many of the pupils will be in school on a part-time basis because of their vocational work in the community. In fact, every effort will be made to reduce to a minimum the number of pupils who attend school full time. Except under special circumstances it is recommended that full-time attendance in the high school be denied pupils over eighteen years of age.

The school will be open from 7:30 o'clock in the morning until 9 o'clock at night, the teachers working in shifts and the pupils attending at the hours that are most advantageous in relation to their outside work.

The Report of the Hawaii Association states that "The traditional high school tended to direct young people into the preferred jobs of the community. The new high school will help young people to discover the wider social meanings and values that may be experienced by those who engage in the common occupations of the community."

Elective work in the subjects of home economics, industrial arts, music, art, foreign languages and commercial work will continue to be offered. These courses will be pursued when the pupils have special need for them. Some who plan to go to college will pursue them extensively.

How this most interesting educational experiment will turn out no one is able to predict. It will certainly be watched with the keenest interest by educators and statesmen everywhere.

## Two Important Tasks Facing the City Superintendent

Two of the most important functions of the city superintendent of schools are defined by Theodore Saam, superintendent of schools, Elgin, Ill., as follows: to select the most competent teachers that his salary schedule, his school system and his community can attract, and to permit and encourage the growth of teachers in service. Of these, the latter is the more difficult.

Scores of devices, stimuli, incitements and means have been suggested and recommended in recent professional articles and books. But these have been based on the opinions of the authors or of supervisors. In order to ascertain the most effective means for the growth of teachers in service, questionnaires in which twenty-eight stimuli were listed, were filled out by more than 300 of the most successful teachers in seven school systems in five states. A summary of their judgments shows that successfully experienced high school teachers rate summer school, general reading and travel; successful elementary teachers rate

summer school, conferences with principal and travel as the most effective means of growth.

These teachers suggest that the following should receive more emphasis: visiting other teachers at work; travel allowance; summer school allowance; fixed tenure; observing demonstration lessons.

## How Guidance Is Serving the Schools of This North Carolina County

Guidance is considered the superintendent's chief ally in the administration of the schools of Craven County, North Carolina, since the ultimate aim of school administration is to provide the best possible school environment for all children, according to R. S. Proctor, superintendent.

After two and a half years of experience with guidance the administration is now providing for the rural children of the county the following type of educational service:

1. In the elementary schools, educational experiences fundamental to complete living. Guidance here aims to develop in children a high degree of self-control through adequate knowledge, participation and cooperation; to develop high degrees of skill in the use of the fundamental processes in school subjects and in life situations; to develop vocational understanding and appreciation; to provide for individual expression and the development of personality; to develop an appreciation of sound health; to lay the foundation for wise use of leisure time; to develop ethical character.

2. In the high schools, attention to problems facing the adolescent. Guidance here aims to teach how to study, how to use the library and reference materials; how to choose electives and student activities; how to meet personal and social problems; how to save; how to keep physically fit; how to select a job, a college or apprenticeship training. All guidance activities not completed in the elementary school are carried over into the high school. Guidance is considered a continuous service from the first grade through high school.

Accurate and continuous records of health, achievement, interests, handicaps and other data are being kept for every child. Adjustments in grading, classification, differentiation, special education and individual instruction are services now being rendered all children. Principals and teachers on the whole are carrying out the guidance program with a keen zest, for guidance has brought to them a new vision of service they are privileged to render every child in the school system regardless of his status.

# Teacher Training That Benefits Both Teachers and Schools

*A Missouri state teachers' college has adopted an effective method of training whereby students assume the position of full-time teachers in a regular school for three months, under expert supervision*

By A. F. ELSEA, George Peabody College, Nashville, Tenn.

**A**N EXPERIMENT in student or cadet teaching was recently carried out in the Northeast Missouri State Teachers' College, Kirksville, Mo. Participating in this experiment were eight typical public schools within a radius of thirty-five miles of Kirksville—Novinger, a fourteen-teacher consolidated school; Connellsville, a five-teacher consolidated school; Lancaster, a fourteen-teacher town school; Glenwood, an eight-teacher village school; Queen City, a ten-teacher town school; Greentop, a seven-teacher rural village school; Davis, a three-teacher rural school, and Shibley's Point, a two-teacher rural school.

These schools had a total enrollment of 1,350 pupils. There were sixty-three teaching positions in these schools, forty-two of which were filled by regular classroom teachers while twenty-one were occupied by cadet or student teachers. The Porter Community School, a one-room rural school, also participated in this experiment, but the work varied somewhat as this school had both a cadet teacher and a regular teacher.

In this experiment student teaching was considered from four angles: the value of student teaching as compared with that of the regular classroom teacher; its cost; its value to the practice teacher, and the reaction of the school and the community to this type of teaching.

## *Serves Three Months as Regular Teacher*

A cadet teacher was assigned to one of these communities for a period of three months and assumed the position of a regular classroom teacher, with all of the responsibility and authority of the regular teacher. She had the same equipment, the same type of classroom, the same library material and approximately the same number of pupils as the regular teacher. She taught in all of the different grades and types of positions, from the first grade to the fourth year

in high school. She directed playground work and acted as sponsor in the various extra-curricular activities. She lived in the community and took part in the various community activities the same as the regular teachers. At the end of three months she returned to college to resume her work there and another cadet was sent to take her place. In order that this procedure should cause no break in the work, the new cadet came a few days early to become thoroughly acquainted with the work before assuming the duty of teacher.

The cadet was allowed no salary for this work, but was given credit for three months' work in education by the college.

## *Training a Cadet Must Have*

The training of the regular teacher used for comparison was that required by the state—at least sixty semester hours (two years) of college training for elementary teachers and 120 hours (four years) of college training for the high school teachers, with particular preparation for those subjects that the teacher taught.

The cadet teacher was required to have at least thirty semester hours of college training for elementary work and seventy semester hours for the high school work, with special training for her particular field. In addition to the supervision received by the regular teacher, the cadet received special supervision under a trained supervisor.

No signed contract was made between the college and these schools. There was, however, a general agreement to which each party adhered. The following quotations were taken from a copy of the agreement made by the college with the school in which a cadet taught and which was in the hands of each party:

"1. Each school in which cadet teaching is being done must provide at least one hour each day of supervision for each cadet teacher in the system.

The supervisor doing this work must be approved by the teachers' college.

"2. The teachers' college will furnish approximately one hour of supervision per week for each cadet teacher.

"3. The superintendent must hold faculty meetings each week, of a distinctly professional nature.

"4. The director of the cadet work will hold a group meeting each week, which all cadets, supervisors and superintendents will be required to attend. Transportation to these meetings will be provided by the schools in which the cadet work is being done.

"5. The regular teachers in the cadet schools should be of a high type, in order that the cadets may with profit observe the good work that they are doing.

"6. Suitable classrooms must be provided for each cadet teacher.

"7. Sufficient library, reference and supplementary material and laboratory equipment must be provided each cadet to carry out the requirements of the state course of study in the subjects she teaches.

"8. The test materials needed for carrying on this work must be provided by the schools in which the cadets are teaching."

#### *The Cadet's Place in the School Scheme*

Briefly stated, the cadet differed from the regular teacher in the following ways: The regular teacher received a salary, while the cadet teacher received college credit. The regular teacher was there for the full year or more, while the cadet teacher changed every three months (three times each year). The regular teacher had about double the college training of the cadet and usually had had previous experience. The cadet teacher received special supervision, approximately one hour each day more than the regular teacher, plus the weekly conference.

In evaluating the student teaching the intelligence quotient and achievements of the pupils were the only factors that were measured. Since a large number of cases are used, there is a tendency for the various other factors to balance each other.

Tests were given to the Queen City schools at the beginning and at the close of the first year of the experiment and to the Glenwood, Lancaster, Novinger and Connelville schools at the beginning and close of the second year. The complete report of the Queen City schools is not available at this time, but there was no apparent difference in the achievements of the pupils under the regular teachers as compared with those under the cadet teachers. On account of the lack of suitable

tests, only the work of the eight lower grades will be considered in this report.

Form A of the Stanford Achievement Test, together with the Haggerty Intelligence Examination, was given at the beginning of the year, and Form B, Stanford Achievement Test, was given at the close of the school year.

#### *The Effect of Cadet Teaching on Pupils*

These tests were grouped according to grades and school, scored, the results tabulated and the average taken, the subnormal pupils being disregarded. The results found were as follows:

The intelligence quotient of the different groups of pupils ranged from 90 to 110. The average for those under the cadet teacher and those under the regular teacher was practically the same, 95. Since the intelligence quotients of the different groups in the various schools were practically the same, the intelligence quotient as a factor in the experiment is not considered further.

The average increase in achievement of all of the pupils under the cadet teacher was 0.85 of a grade, measured by the Stanford Achievement Test, while that under the regular teacher was 0.81 of a grade. The pupils under the cadet teacher gained 0.04 of a grade more than the pupils under the regular teacher.<sup>1</sup> In three of the schools the achievements of the pupils under the cadet teacher were slightly greater than that of the pupils under the regular teacher, while in one school the achievements of the pupils under the regular teacher were superior to that of the cadet teacher.

The pupils in the Lancaster school showed more progress under the cadet teacher, while in the Connelville school the progress of the pupils under the cadet teacher was 0.03 of a grade less than that under the regular teacher. In connection with this it should be stated that because of weather and road conditions the college was able to give more supervision to the Lancaster school than to the Connelville school, which may account for the superior work on the part of the Lancaster school.

The difference in achievement of the various groups was slight. It would not be safe to say that either the work of the cadet teacher with extra supervision or that of the regular teacher was superior. From the facts presented and if we consider only the achievement of the pupils, it may be concluded that with student teaching the work of the cadet teacher is equal to that of the regular classroom teacher.

As a former professor of rural education and

<sup>1</sup>The results of this study are similar to those reported by C. G. Frazen, who made a similar study of another type of student teaching, *Bul. School of Ed.*, Indiana University, March, 1926.

director of cadet teaching at State Teachers' College, Kirksville, Mo., I do not consider that the results found in this experiment so far are final or that all the data obtained are accurate. While precautions were taken in administering and grading these tests there were chances for error. The tests were administered by a college class in tests and measurements. Various persons were responsible for the various schools, therefore errors could easily have occurred.

The results found are in keeping with the opinions of the parents, school board members, other school officials and educational specialists who visited the schools and classed the work of the cadet teachers as being as good as that of the regular classroom teachers. When the cadet teachers and the regular teachers were scored by a teacher rating card it was again found that the work of the cadet teachers rated as high as that of the regular teachers.

The experiment would be of little value unless other factors were also considered, namely, the cost, the educational value to the student teacher and how the work was received by those directly or indirectly affected by such practice teaching.

#### *Economies Effected by This Method*

The cost is an interesting feature as it is much less than that of the regular demonstration or practice school. The saving in teachers' salaries to the school system is usually sufficient to pay for the extra supervision. There are, however, other expenses attached, and it cannot be said that this type of teaching is upon a self-paying basis, but it is nearly so.

The experiment has not been conducted for a sufficient length of time as yet to reveal its real worth to the students doing the cadet teaching, but the one hundred and fifty or more who have taken the work are so strong in its praise that there is little doubt as to its worth.

After the work was completed and the grades in, each cadet was asked by the supervisor to write a frank opinion of the value of the work. Without an exception everyone who took the work praised it in no uncertain terms. The following quotations from the student papers are typical of the entire group:

"Cadet teaching has been very valuable to me. I have learned more of the teaching problems, such as classroom management and class procedure in these ten hours of credit than through all of my other college courses."

"In cadet teaching I have gained not only a knowledge of the methods of teaching, but also the actual experience of meeting and solving problems. I think this has been worth more to me than

ten hours of education offered on the college campus."

"It is an enjoyable and efficient means of improvement. One of the greatest helps it has been to me is in learning new methods and finding new solutions to the problems that arise in teaching."

"In our cadet teaching we are made to realize the need of becoming a part of the community in which we teach. This may be done through our interest in community affairs, entering into certain community activities and trying to see and help solve the needs of the community."

#### *Cadets Value Supervisory Method*

"I believe that cadet teaching has done more for me than ten years of ordinary teaching experience could have done. The problems that a teacher meets in the field of actual experience are left entirely to the teacher to solve. On the other hand the cadet teacher has the expert advice of the superintendent under whom she is teaching, and the supervisors are specialists in that line of work. I do not believe that I ever knew the meaning of the word efficient before this winter."

"I was afraid of supervision, in fact I was afraid of visitors. This feeling has left me and I can now teach as well with a group of visitors in my room as I can with only myself and the pupils."

"One who expects to receive the maximum education from the college courses will be wise to choose cadet teaching as a means toward achieving that end."

"To me cadet teaching had been one of the most beneficial courses I have ever had. It is more than 'practice teaching', it is real teaching. The cadet has full responsibility in her own room. In this way all the classroom problems are necessarily dealt with. The cadet has the best qualified instructors with whom to discuss these problems. The cadet is not looked upon either by pupils or fellow teachers as a practice teacher, but is considered as a faculty member."

#### *Training Is Practical*

"Cadet teaching is practical. The student accumulates a fund of theory. Her mind is filled with ways and means of solving educational problems. Cadet teaching gives the student a chance to find out for herself the possibilities of the things she has learned. Of course she will find this out when she gets out in the field, but she will not have the aid and advice of a trained supervisor to turn to when in difficulty. The cadet works as a full-time teacher and yet has the supervision so necessary to growth and development."

"I feel that the amount of supervision that I

received greatly helped me. Yet I was at no time made to feel that I was not the real teacher of the room in which I did my work."

"Cadet teaching affords one the opportunity of putting theory into practice and here one finds that some theories will not work successfully in the classroom."

A consensus of the opinions expressed on cadet teaching showed the following values expressed the most frequently: (1) It provided an opportunity to acquire self-confidence. (2) It offered an opportunity to test methods and theories that had been taught in college courses in teaching. (3) It gave them an opportunity to check, discover and remedy personal traits that hindered their effectiveness as teachers. (4) It made it possible for the cadets to become used to and to utilize supervision. (5) It placed the cadets in a teaching environment where they could get the teaching spirit. (6) It gave them an opportunity to know the school patrons, by living and working in the community. (7) It gave them a full day's program of teaching, including playground supervision, which the old plan of practice teaching did not offer.

#### *Opinions Differ in Value*

Some of these opinions were expressed by students who had had an opportunity to compare this type of teacher training with observation teaching or so-called practice teaching. In the case of others, the judgment was made without any other standard with which to compare it, hence, the various opinions expressed differ in value.

Two factors are present in cadet teaching under the present arrangement that are not present in many situations for training teachers in service. The first is that the teacher has a period of time that is long enough for her to plan, teach, test and reteach a complete unit of subject matter. While it has not been determined that twelve weeks is the optimum length for such a period, there are a number of phases of the teachers' work that cannot be judged by them or by the supervisor on the basis of one or two weeks' work.

The second factor is largely a psychologic one. This is the feeling on the part of the teacher that the whole problem of managing the class and establishing the routine is her problem. She does not feel that the pupils are looking through her to the regular teacher.

The cadet teacher who attacks the problem of teaching with an open mind, with the knowledge that there are probably many things about the business that she has yet to learn and with an earnest desire to find the problems and to solve

them, undoubtedly will find this type of instruction useful. Cadet teaching would be equally valuable for the inexperienced teacher going out on a regular teaching job except that the facilities for finding and solving her problems are seldom as adequate as under this plan.

#### *Community and School Approve of Plan*

Another attractive feature of this type of teaching is that it met with the favorable support of the school and community in which the experiment was conducted. The superintendents who were in charge of the cadet schools took an active interest in this work. They believed that the cadet work strengthened their school systems, that it was a forward step in the field of education, and that while it caused them more work they were glad to have it because of its many merits. The regular teachers endorsed the work and showed a friendly attitude toward the cadet teachers by advising with and assisting them in their problems. Neither superintendents nor regular teachers received any additional salary for this extra work. The patrons and school board members were appreciative of the work. The parent-teacher association heartily endorsed the plan. The cadet teachers were entertained in the homes and in every way were treated as regular faculty members. The boards of education and superintendents further expressed their faith in the cadet training by later employing many of these cadet teachers as regular members of their school faculties.

#### *What the Study Shows*

The conclusions reached from this study are:

1. Pupils taking work under cadet teachers when measured by standardized tests showed an achievement equal to that of the pupils under the regular classroom teachers.

2. The cadet teachers assume their positions as regular classroom teachers, thereby lessening the number of regular teachers usually required. This decreases the cost of instruction to the extent that the savings more than pay for the additional supervision needed.

3. The cadet teachers enjoy the work and get the real training experience they believe is essential to their success as teachers. Every teacher who has taken the work has found it of value.

4. Pupils, regular teachers, school officers and patrons of the communities where the work was conducted endorse cadet teaching and have accepted it as a strengthening factor in their school systems. As further proof of their faith in this type of training, many of these cadet teachers have later been employed as regular teachers in these school systems.

## Shall the Plans for the New School Include Radio Installation?

*Before Grosse Pointe, Mich., decided to provide for radio in its new schools it gathered helpful information that will doubtless be welcomed by other systems*

By S. M. BROWNELL, Superintendent of Schools, Grosse Pointe, Mich.

**S**HALL radio be incorporated as part of the school equipment? Its educating value has been eagerly recognized by the advertiser, and to-day, entirely apart from the school, the radio is an educational force influencing untold thousands.

School administrators, teachers, boards of education, state departments of education and university bureaus recognizing the effectiveness of the radio to reach multitudes with the single voice, are experimenting and studying the best methods

and the best equipment for using radio in the school. The rapid development of this instrument in the past few years promises a continued advance in the coming years.

To the administrator and school board who are constructing buildings destined to be used for a generation or more, a definite answer must be made to the original question raised. If radio is to be commonly used, provision for its use should be made when the buildings are constructed. What, then, is the proper equipment to choose?



*Sixth grade pupils at the principal's desk broadcast a program to the school on Roosevelt's birthday.*

Grosse Pointe, Mich., is growing rapidly and as a result is requiring new buildings to house the additional pupils. In the planning of these buildings the radio equipment problem had to be faced. The information that was gathered to help determine whether or not radio should be provided for and the type of equipment needed will probably help others in a similar situation. It is presented, therefore, not as the last word concerning radio or as a piece of scientific statistical investigation, but as useful information for those who may be considering the installation of radio equipment in their schools.

In considering the question of whether to provide radio equipment for the school, data were studied concerning (1) the present use of the radio for instructional purposes, (2) the types of radio installations used in schools and (3) the possible uses of the radio for school purposes without providing radio equipment in the school itself.

The Ohio School of the Air is probably the most extensive experiment in the use of the radio for school work that has been attempted. The schedule of programs is sent to the schools at least a month in advance, together with lesson plans, an outline of the work to be covered, additional bibliography and other helps for the teachers. Lessons in current events, nature study, story plays and rhythemics, French, chemistry, physics, history, geography, music, drama, civics, health and literature are broadcast.

#### *What Experimentation Has Proved*

Some of the questions that have been raised concerning this use of radio and the answers that have been given are summarized as follows:

1. Are not the present school curricula already too full without additional broadcast material?

The School of the Air does not attempt to add new courses. It provides short periods of instruction expected to fit into existing courses of study. Arithmetic, French, history and music are all designed to fit into present courses.

2. Can instruction be given satisfactorily by radio without the teacher being present with his personality, the visual stimulus of smile, gesture or frown, to hold the attention of the pupil?

Actual experience in several cities where radio has been used has proved that radio held the attention of pupils, not only during the novelty period but continuously as long as the broadcasting was properly done. Teachers do not leave their rooms. They supervise the doing of things in which the radio instructor directs the classes. The radio teacher does not take the place of the class teacher but serves as her assistant.

3. Is it not possible that much of the instruction given by means of the radio may be over the heads of the pupils because they lack the proper background?

Instruction given by radio under competent direction is graded as other school work is. Competent teachers who discover that lessons received by radio are not understood by pupils may turn off the radio and go on teaching in their own way. The lesson leaflets placed in the hands of the teachers well in advance of the broadcast lesson allow teachers to prepare pupils for the radio material and thus minimize the possibility of pupils' not being ready for the radio lesson.

4. Will not use of the radio tend too strongly to the lecture method and exclude self-activity by the pupils?

#### *A Supplement to the Teacher's Work*

The attempt is made to have as radio teachers only unusually superior instructors. Part of their technique is to provide some activity that will be directed by the local teachers. Not only can the classroom teachers who are prepared by the lesson leaflet direct the self-activity of the pupils at the time the lesson is given by radio but, by listening to the master teacher they are able to acquire new and better methods that can be used at other times.

5. Can the radio supply socializing values to the same degree as the classroom teachers who conduct the lesson?

Of course it is to be remembered that the classroom teacher is not supplanted by the radio teacher. It is likewise true, however, that the broadcast can stimulate interest in the statewide or even more than statewide contests in writing, music and other subjects.

6. Can radio instruction supply individual instruction to backward pupils?

It is not the attempt of each radio broadcast to supply individual help, but if the lesson is well taught by the radio teachers the classroom teachers will have more time to help the backward pupil individually. They are able to watch each pupil in a way that would be impossible if they were doing all the teaching for the full class.

7. How can the radio teacher adapt himself to differences in curricula and vocational outlook in different localities?

The radio teacher cannot expect to do this. He can deal only with fundamentals. For example, Colonel Lindbergh might introduce the subject of geography by describing some section of the country over which he has flown. The interest he would inspire would be equally helpful whether the teacher desired to place the emphasis on coal

fields or corn fields or on other equally differentiated subjects.

8. Will not static prove a detrimental factor in radio instruction?

As radio receiving apparatus is being improved static seems to become a less and less important factor in the matter of the reception of radio material. Likewise, stations are interfering with each other less and less as better equipment is

ministration in keeping the set locked when it is not in use and in keeping it tested as any other equipment would be tested.

10. Would not the phonograph give the same results and fit into the school program better?

There is undoubtedly a place for both the phonograph and the radio as instructional media, yet certainly there are many things available by radio that cannot be obtained on the phonograph.



*First grade pupils at Père Gabriel Richard School, Grosse Pointe, Mich., read their favorite story at the microphone.*

being provided. Since there are fewer programs during the day than in the evening there is not as much possible interference during the school day as during the evening hours.

9. Because of the short daylight range of stations, may not reception be too weak during school hours for satisfactory results, and may not the fact that radio receivers sometimes get out of order cause interruptions in the lesson periods?

When radio lessons are broadcast by high powered stations, the weakness of reception is not much of a factor. To ensure that school sets are in condition at all times is only a matter of ad-

11. Is not the radio for schools too expensive to use as a form of instruction?

This last question is not easy to answer since it is difficult to determine certainly at the present time whether the benefit received will equal in dollars and cents the cost of the equipment. Probably the only answer to this will have to be the same answer that is given concerning the benefit of all school books and equipment and teaching procedures. A careful examination of the probable results of the radio weighed against good common sense judgment of what the school can afford will probably have to determine the answer.

To obtain further information concerning the use of school radio, the administrators of twenty-five public schools in different parts of the country known to have radio equipment were questioned as to the uses, the benefits and the difficulties of their present radio installation.

#### *What Twenty-Five Administrators Think*

The replies to these inquiries are interesting. The report is in no wise rated as a scientific investigation to check accurately on the use of the radio. It merely represents the collection of opinions of school men who have used the radio. This information is passed on because there are others who may likewise be interested to learn what reaction comes from schools where radio is already installed. The report of the Ohio School of the Air indicates the attitude of those who are conducting a broadcasting experiment. These inquiry reports indicate the reaction of those who have received broadcasts of school and other material as it has come to them. In the lists here given the replies have been placed in order of the number of times any particular item was mentioned.

How schools are reacting to radio broadcasts may be noted somewhat from replies to inquiries sent in by twenty-five schools having radio and public address systems. No attempt was made to make a careful statistical study but rather to obtain a free expression of judgment as to the uses of and objections to such installations.

The major uses of radio and public address systems were reported as follows: making announcements to part or all of the school; receiving programs; receiving music; broadcasting addresses by school speakers; receiving current events; receiving lectures; instruction in school subjects; amplifying assembly programs; marches or music for assembly and dismissal; music in cafeteria at noon; interesting children in the basement on rainy days; club activities; music for dancing in the gymnasium after basket ball games.

In this list the reception of programs, music, lectures and current events, if they had been combined as one item, would have ranked first. It is interesting to note the general administrative use that is made of the public address feature in making the necessary announcements. It is also rather interesting to note the number of ways in which the radio installation may serve the school.

The chief benefits of radio and public address systems were reported as follows: instantaneous communication with any group of pupils; bringing to pupils valuable material they would not otherwise receive; assuring good music and public

addresses to pupils; saving the time and energy of principals, teachers and pupils; high enough volume level in auditorium to hold attention of audience; good means of entertainment; added interest in subjects when lectures come to class by way of the radio; instruction; cultural value of some programs; convenience; certainty that messages are delivered; increased power of concentration on the part of the pupils; doing away with the necessity of assembling of pupils in the auditorium; saving in the expense of an orchestra for dances after basket ball games.

Comparison of the amount of use as shown in the first list with the estimate of the chief benefits of the radio installation shows that the instantaneous communication with any or all parts of the school with a minimum of energy, which is made possible by the public address feature of many radio installations, appeals to many administrators. Perusal of the list shows a range from the good old formal discipline benefit which used to be advanced for Latin and Greek in the curriculum, "increased power of concentration," to the very practical benefit advanced in "saving the expense of an orchestra."

The greatest difficulties in the use of the present radio in schools were listed as follows: faulty equipment; not enough loudspeakers; coordinating the School of Air with the regular school program; developing an effective teaching technique over the radio; complete local control in the room instead of in the central office.

#### *Few Difficulties Were Listed*

A number of administrators either left blank the question concerning difficulties or else stated that as yet they had met none. Apparently, however, the difficulties lie in both fields, that of equipment and that of the materials broadcast. Administrators contemplating installations, therefore, should consider well the kind of equipment to be installed, the number of loudspeakers and how the installation is to be controlled.

To the question, "What changes would you make in your present installation if you had the opportunity?" these answers were received: install a loudspeaker in each room; a central board in the office rather than a switch and volume control in each room; a loudspeaker nearer the set in addition to one in each room; use a one-tube set amplified through a public address system; install speakers in gymnasium so that sound waves strike the floor obliquely.

The changes suggested came from a few of those questioned. They are noted, however, as the advice of persons who are using the radio now. Before an installation is made, administra-



*Third grade pupils are happily listening in on a nature study lesson.*

tors may at least want to check on those points.

Programs that were found to be most usable for the school were listed as follows: musical; Damrosch; School of the Air; public events; noted speakers; talks from within the school; arithmetic.

To the question, "How often do you use the radio for school purposes?" the replies stated: daily; weekly; two to three times a week; seldom.

Here, then, is evidence that once the radio is installed use is made of the equipment. Nearly all of those replying who had the public address feature along with the radio receiving set indicated a daily use of the equipment.

The major criticisms that were offered of the educational material that is being broadcast now were: not enough really educational; class schedule and air schedule not synchronized; programs not adapted to lower grades; not enough broadcast; poor technique in broadcasting by some educators; often no correlation between broadcast material and what the class is studying; program too long; poorly outlined for teachers' use before the broadcast; more programs before and after school; not organized for high school, in content or in schedule; too much advertising; women participants uninteresting.

Much discussion might center around these criticisms. The ones offered were listed by one or

two individuals except for the first item which was mentioned by three persons. To those in charge of broadcasting it appears that the educational material may be improved in a number of ways, including the reducing of advertising and of the number of women participating.

As to the equipment to be used in school installations it can only be said that what might work out well in one situation might not be the best for another. In planning all of our school buildings at Grosse Pointe we are including conduits with wiring for radio and public address systems.

In our planning we recognize the present value and probable growing value of radio as a medium of instruction and hence the need for (1) a flexible system, one which will allow a program to reach any one or more rooms at any time; (2) an easily administered system, one in which there is the least possibility of the apparatus being damaged by indiscriminate use; (3) a system that may be expanded, one that will allow more than one room to have the benefit of a radio program in case two valuable programs are on the air at the same time; (4) a system to meet future needs, one that may be changed with a minimum of expenditure as improvements come about in the radio field or to allow the use of television which seems to be in the offing.

To this end we provide for a conduit system

from the office of the principal to all rooms in the school. The principal's office has a place for a control panel designed to allow any or all rooms to switch to any one of three possible programs. Each room is equipped with a loudspeaker with partial volume control. At present one receiving set is installed in the central office, where there are also a victrola turntable and a microphone. In the auditorium and in the principal's office there are likewise microphone outlets. In each room the electric outlet now placed there for the particular use of a portable stereopticon and movie projector is available for supplying power for the television apparatus when it is developed.

In the future, as more educational material is broadcast, the second or third receiving set may be added without any change in the system. As better receiving sets are perfected, changes may be made with only the change in this part of the system.

#### *Serving Both Parents and Pupils*

We are making one other use of the radio which may have much educational value. The idea was suggested from an experiment that Robert Shillinglaw is trying in a small school near Albany, N. Y. One of the men on the Grosse Pointe staff has obtained the cooperation of two large broadcasting companies and of the local broadcasting stations. Each week they send to him in advance a copy of the week's broadcasting schedule. A schedule is then prepared noting the features of educational value, the time and station from which they may be received, and indicating the groups to whom they would probably be of most interest. A copy of this schedule is then delivered to each teacher, to be placed on the bulletin board of the classroom and to be of use to him in the assignment of special reports or of home work.

Teachers are delighted with the helpfulness of the material thus made available. For actual educational value this use of the radio offers large possibilities.

The influence of the school in directing to the attention of pupils those programs on the radio of most value may quite possibly reach the whole family as well as the one pupil who is listening in with a definite purpose in view.

While superintendents are considering seriously the expenditure of money for the installation of radio equipment in their schools and are exercising their brains trying to work the programs in with the school schedules, it seems wise indeed for them likewise to consider carefully and to make good use of the valuable educational material the radio is bringing to pupils in out of school hours without one cent of cost to the school.

## California's Model Program of Adult Education

In keeping with modern trends in educational organization and administration, California is the first state to have unified under one administrative head its program of adult education and its program of continuation education, according to Vierling Kersey, director of education for the state.

Adult education in California has attained to such proportions that there are enrolled in classes offering educational opportunity for adults as many students as there are enrolled in classes offering educational opportunity to boys and girls in the high schools.

This adult education program centers its core of activity around the following:

1. Americanization instruction for those desiring to learn the English language.
2. Instruction for those who desire to become American citizens.
3. Instruction for those who desire to complete their general educational program.
4. Instruction for those desiring vocational improvement, reestablishment and rehabilitation.
5. Instruction for an ever increasing number of those who desire education for cultural values and for the improvement of the use of their leisure time.

Closely associated with the program of adult education in California is the state program of continuation education which offers educational opportunity for young men and women who, because of economic necessity or because of educational maladjustment, drop out of regular schools and enter the field of employment, desiring, however, while employed, to continue their educational program.

The California state continuation law is recognized as the model in the United States.

For the third summer the state department of education and the University of California have cooperated in offering at Berkeley a special school for those interested in adult education. Investigation and inquiry are being continued in this new field of education for it is recognized, to quote Chancellor Brown, of New York University, that "In a world of accelerated change led on by scientific discovery, the person of mature life requires not only that his educational underpinning be overhauled from time to time, or at least inspected, but also, if need be, reenforced."

The adult education school is designed to be of assistance in this essential process of overhauling, reenforcing and rebuilding.

# What Are the Scope and Function of Research Departments?

*Work being done by city school research departments is producing valuable data upon which to base decisions with respect to every phase of educational administration and supervision*

By OSMAN R. HULL, Professor of Educational Administration, and MABEL E. MAYNARD, Graduate Student in Education, University of Southern California, Los Angeles

A SEARCH of current periodical literature yields just enough information on city school departments of research to indicate that much is being done, but not much is being reported. A dozen articles in *The NATION'S SCHOOLS*, one or two in *School Life*, a few in *School and Society*, and one here and there in other educational magazines make up the total of reports that have appeared during the last three years in periodicals devoted to education.

A study of the annual reports of school superintendents and of bulletins issued by departments of research in city school systems reveals the fact that much time and effort are being devoted to the educational problems encountered by school administrations and that there is a growing tendency to obtain by research accurate data upon which to base decisions with respect to every phase of educational administration and supervision. A list published by the Office of Education in 1930 shows approximately seven hundred educational research studies in city school systems completed, in progress or contemplated.<sup>1</sup> The cities represented are over one hundred in number and are distributed throughout thirty-one states, including the District of Columbia.

## *Various Forms of Research Noted*

The growth of city school departments of research is comparatively recent. In most instances they originated in the testing movement, which received its greatest impetus immediately after the World War. The annual reports of city superintendents and boards of education in many cities throughout the country for years as late as 1927 and 1928 make no mention of research studies. A considerable number of others, however, tell of such work being done, in some cases by regularly

organized departments and in other instances by a member of the staff in connection with other duties, such as supervision of instruction. In some cities committees of teachers are organized for research, under the supervision of a director or department of research.

## *Utilizing Research Councils*

The plan followed in Lynn, Mass., as described by Samuel Engle Burr in *The NATION'S SCHOOLS*,<sup>1</sup> is interesting. There the teachers have been organized into small voluntary research groups, with the idea of making the entire personnel active in the work of the research department. These groups, called research councils, were organized in the various schools, usually by the supervising principal. Some topic of special interest to the group was chosen and an adviser appointed, either a member of the research department or a special supervisor, such as the art or music supervisor. It is interesting to note that fifteen of the sixteen groups completed their studies. Pasadena, Calif., Baltimore, Detroit, Newark, N. J., and numerous other cities also report the use of teachers' committees in carrying on research studies.

An idea of the wide range of problems studied by city research departments may be gained from an examination of the functions of these departments, as described in the reports of school superintendents and of the research departments themselves. The aims of research as stated in the annual report of school commissioners of Baltimore may be summarized as follows:

1. The improvement of instruction, through better classification of the pupils; provision for educational and vocational guidance; development of tests, forms and efficiency devices; stimulation of professional reading; training of teachers for re-

<sup>1</sup>List of Educational Research Studies in City School Systems, No. 1, Edith A. Wright, Office of Education Circular No. 18, Aug., 1930.

<sup>1</sup>Burr, Samuel Engle, Research Councils and How They Function in One School, *The NATION'S SCHOOLS*, Oct., 1929, p. 25.

search work; making available data concerning school work; provision for remedial instruction; improvement of the administrative program; grouping of classes according to needs, and centering the interest of the teacher upon the individual pupil through making available all data relating to him.

2. The improvement of the whole educational system, through making available to the school staff the findings of research and by interpreting the schools to the public.

#### *How Work Is Conducted in Various Cities*

In Birmingham, Ala., the bureau of service in 1922-23 was concerned with school statistics, school census, school property records and a school building survey. In 1923-24 it expanded its activities to include assistance in financial reports, supervision and mental tests and measurements.

The department of educational research of Alhambra, Calif., has charge of intelligence testing, educational testing and guidance work. In San Francisco the bureau of service was organized in 1925 and concerns itself with a wide range of problems, from school building programs and salary schedules to diagnosis of deficiencies of pupils, a program for the improvement of silent reading and mental ability tests.

In New York City the function of the bureau of reference, research and statistics is described as the investigation of all matters referred to it by the superintendent of schools and the board of education. Its routine tasks include classification of pupils, child accounting and pupil progress, studies of promotion, measurement of instructional results, personnel problems of the teaching staff, the course of study, finance and budget and school organization.

The kinds of problems studied by city school research departments, as classified by the Office of Education in the list previously referred to, show the tendency of city administrations to seek valid data upon which to base policies and decisions. These classes, ranked according to the number of studies in each, are as follows:

Special subjects of the curriculum.....	215
School management .....	134
Teachers, training and professional status....	30
Educational tests .....	29
Exceptional children .....	29
Educational and vocational guidance.....	27
Secondary education .....	25
Special methods of instruction.....	22
Psychologic tests .....	22
School administration .....	21
Health and physical education.....	16

Manual and vocational education.....	15
School buildings and equipment.....	14
Commercial education .....	13
Educational research .....	12
Current educational conditions.....	9
Nursery, kindergarten and primary education.	9
Social aspects of education.....	9
Character education .....	7
Extension education .....	7
Libraries and reading.....	7
Home economics .....	6
Racial groups .....	5
Elementary education .....	4
Military education .....	1

The largest group, special subjects of the curriculum, includes seventy-three studies on tests and 142 on methods, evaluation of texts and courses of study. The next group, school management, covers 134 studies on such subjects as ability grouping, age-grade placement, class size, elimination of pupils, examination, extracurricular activities, pupil failures, marks and marking, promotions, records and reports. The thirty studies relating to teachers considered their training and professional status, preparation, rating, salaries and teaching load.

#### *What Typical Studies Show*

To give the titles and findings of studies typical of all the classes listed would extend this article to an unwarrantable length, but the inclusion of a few will give a clearer idea of the sort of work that is being done.

Dales, O. P., Nonpromotions in the Passaic High School. Public Schools, Passaic, N. J., 1929. A thirty-one-page manuscript.

Purpose: To ascertain facts of nonpromotion and the causes thereof, if possible, in order to devise remedial procedure.

Conclusions: (1) Small classes are advantageous in algebra and commercial arithmetic. (2) Class size is an item, but not so important in the case of English and Latin. (3) Passing marks required by grades and high school vary too much. (4) Immaturity is not a cause of failure. (5) Children from the parochial schools are as a whole poorly prepared. (6) The majority of failing pupils are not studying enough on home work. Pupils should average three hours a day to do the best work. One hour may be done in school. (7) Pupils are failing because of too much outside work. (8) Extracurricular activities have no effect on failure. (9) Absence is shown to be closely allied to failure. (10) Conduct is not an item. (11) English difficulties probably affect failures. They are not as important as is commonly believed. They

probably cause failure in English. The knowledge of two languages is an asset in learning other subjects.

Smith, Harry P., *A Ten-Year School Building Program for Syracuse*. Research department, public schools, Syracuse, N. Y., 1929. The study outlines building needs for the period 1929-39.

#### *A Research Study of Character Traits*

Cutright, Prudence, *Is the Rating or Marking of Character Traits Practicable?* Department of instructional research, public schools, Minneapolis, Minn., 1930. An eight-page manuscript. A comparison of scores in deceit determined in an objective manner with teachers' marks on reliability (194 cases) and on social attitudes (139 cases).

Findings: Teachers' marks on traits are unreliable.

Detroit public schools, department of research. Development of devices for measuring the quality of the work of an elementary school principal, 1930.

The development of a scale that may be used first for describing objectively the merit of the work of an elementary principal and second in evaluating this work with reference to standards agreed upon. A study made by a group of district superintendents in cooperation with the research department.

Detroit Educational Bulletin, Nov., 29, vol. 13, p. 1. A comparison of the results of teaching a class of forty 9-A superior pupils in literature with a similar class of sixty equally high in intelligence.

Conclusion: X pupils working on the project basis did better work than the rest of the school, but whether they would have done better if the class had been conducted on a conventional basis is not known, because of the lack of a control group.

It is possible for a teacher to secure as good results in the teaching of literature to a class of sixty 9-A superior pupils as to a class of forty equally intelligent pupils.

#### *How Fatigue Affects Our Work*

Fresno, Calif., Annual Report of Public Schools, Department of Research, 1926. The relative influence of fatigue on different levels of mentality.

Findings: The influence of fatigue on the speed of work is greatest among those with a high I. Q. Those with an I. Q. of from 60 to 79 showed little difference in speed or quality of work under varying conditions of fatigue. The brightest pupils increased speed and correctness of work after a period of rest or after a change, such as recess. There was much more variation in the scores of

the bright pupils as a result of fatigue or periods of rest.

Lewerenz, Alfred S., *Some Results of a Visual Education Lesson in Junior High School Social Studies Taught With the Aid of Flat Pictures*. Los Angeles Educational Research Bulletin, Nov., 1929, pp. 5 to 16.

Findings: Boys observe better than girls. The mental level has a distinct influence on the answers to the test. The children with a relatively low I. Q. made the greater gain from a study of the pictures. The finish of the pictures had little effect on the results.

Several interesting trends are to be noted with respect to city school department bureaus of research. The last five to ten years have witnessed the organization of bureaus of research (under varying names) in many school systems in all parts of the United States. The functions of these vary from devising, administering and analyzing results of tests to conducting building surveys, devising salary schedules and making budgets, but the trend is decidedly toward scientific research as the basis for solution of all supervisory and administrative problems.

#### *An Expert Usually Conducts Studies*

In smaller systems it is still frequently the duty of some member of the educational or administrative staff to combine the direction of research with other activities, but the tendency is to place this work in the hands of a trained expert who either directs the teachers in research studies or directs a department of research if the system is large enough to justify it. Even when a department of research is maintained, there seems to be a tendency to enlist the teachers in research studies and to make available to them the findings of studies made by the research department.

A criticism frequently made and apparently justified by an examination of the list published by the Office of Education is that the findings of studies made by city bureaus of research are not available to other workers in the field. Some city departments publish research bulletins, but far too many of the studies are never published or even mimeographed. The annotated lists of these studies published by the Office of Education should be of great service in eliminating unnecessary duplication and in making it possible for those interested to obtain valuable material. Important studies should be reviewed in educational periodicals to a greater extent than they are at present.

W. Hardin Hughes, writing in *The NATION'S SCHOOLS*,<sup>1</sup> takes a hypothetical backward look

<sup>1</sup>Hughes, W. Hardin, *Research and Public Education in 1950*, *The NATION'S SCHOOLS*, July, 1930, p. 21.

from 1950 at the whole question of research with respect to public education. A summary of his conclusions will serve as an excellent statement of the trends of this activity. He says that by 1950 research will have shifted from tests and measurements to every important phase of educational activity; that it will contribute to cooperative determination of educational objectives and will serve the continuous purpose of evaluating these in terms of consistency and effectiveness; that it will reveal the incompatibility of school standards and will make it possible to analyze and prove illogical the excuses for this incompatibility; that it will secure facts and set forth principles upon which personnel administration can become efficient; that it will reveal discrepancies between real and supposed educational practice, and that it will reveal the causes of inarticulation between school, home and work and will find a way to eliminate them.

### Ways to Solve the Problem of the Country Child

"One of the most important problems of the present is that of equal opportunity for the country child as well as equal prosperity and happiness for the country father and mother."

So states the report of the committee on rural education, National Education Association, which was presented by Florence Hale, newly elected president, at the annual meeting of the association in Los Angeles.

Definite ways in which the committee hopes to help solve the problem are listed in the report as follows: (1) by calling the attention of all state and government officials, rural and city school boards, the press and communities in general to the inequalities of opportunity and to the handicaps of rural life as they now exist; (2) by working for a sentiment that shall bring about larger units of administration and taxation for rural schools; (3) by working for administrative school districts which shall provide secondary as well as elementary school privileges for the country children so that pupils may live at home; (4) by arranging in their several communities statewide conferences for furthering these aims; (5) by making a careful study of health conditions, based upon the report of the White House Conference on Child Health and Protection, emphasizing the principle that all health agencies, whether maintained by private or public funds, shall be consolidated in the state department of education and that all such agencies shall work under the direc-

tion of the state department of health; (6) by endeavoring to solve the question of raising the certification standards of rural teachers in certain states; (7) by studying and evolving ways for training rural teachers in service, believing that one of the greatest needs of the rural schools to-day is better trained teachers.

### One Out of Every Two Children Can Finish High School

Educational opportunities have so increased in the United States that at the present time one out of every two children may expect to complete high school, and one out of six may expect to complete college, the Office of Education has announced.

With approximately 25,000,000 pupils enrolled, from the kindergarten through high school, about \$2,500,000,000 is being expended annually for public education. Education has become an important item in the budget of every state.

Edwin S. Lide, specialist in the Office of Education, recently has made a study of the constitutional basis of public education in America, and has found that as the country has developed the constitutional provisions have increased.

From his study, which has just been made public, Mr. Lide concludes:

"Most constitutional provisions relate to state, rather than to local organization, support, and control of schools and to public schools in general rather than to local districts of a specific type. Legislatures in the various states are for the most part left a free hand to create such local units as they may think are best adapted to conditions within their state.

"A consideration of the data reveals a lack of settled policy on the part of the various states as to the degree of detail in which other types of provisions should be written into the constitution and how much left to the law enacting bodies more sensitive to change.

"The following four types of provisions are the only ones that appear in the constitution of a majority of states:

"1. The furthering of the educational interests of the state is made the responsibility of the legislature.

"2. The use of public school funds for sectarian purposes is prohibited.

"3. The source, care and method of apportioning the state school fund are prescribed.

"4. The manner of selection, qualifications, term and sometimes the salary of the principal state school officials are prescribed."

# A Character Training Experiment and How It Has Succeeded

*Not only have the school children of Birmingham, Ala., benefited by an eight-year program for character development but the grown-ups, too, have been noticeably influenced*

By C. B. GLENN, Superintendent of Schools, Birmingham, Ala.

FOR the last eight years the schools of Birmingham, Ala., have been conducting a successful venture in character training. The method followed has been definite though indirect.

In the opinion of the board of education, most of the youth of Birmingham have received abundant moral instruction in the home, the school, the Sunday school and the church. Some, perhaps, have been surfeited with admonitions, maxims, platitudes and precepts with little or no thought consciously given to the setting up of situations that invited the application of these precepts.

With this in mind and believing that men are in truth but grown up boys, sometimes not even grown up, the board invited the community to join the 56,000 children in the public schools in a game. The press of the city entered enthusiastically into the project and the luncheon clubs, the parent-teacher associations and other organizations gave it hearty support. The result has been apparently a happier and a better community.

In "The Autocrat of the Breakfast Table," Doctor Holmes makes what to my mind is one of the most perfect puns in English literature. In reply to the question, "Is life worth living?" he says, "That depends upon the liver." Good health has much, perhaps more than we realize, to do not only with determining one's attitude toward life, but in shaping character itself.

## *Health the First Aim*

Believing this, the board of education selected as a slogan for the first year of the venture: "The Development of Character Through Health." The curriculum of the schools and the work of the year were made to center around this theme. Few if any of the pupils thought that the increased emphasis placed on play and recreation, on proper diet and on sanitation, had as a definite objective the development of character. The fact that scheduled play periods became as regular and as

frequent as arithmetic and spelling aroused no serious objection on the part of the children. The homes were invited to cooperate in the proper feeding of children. One of the most interesting exercises I have ever witnessed was when, in the presence of the board of education, parents and friends, certificates were presented to all hitherto undernourished children who had achieved the desired weight. During the health campaign, many interesting expressions were coined by the children themselves, such as "What profiteth it a child if he gain all knowledge and lose his own health?"

## *The Development of Sportsmanship*

Nor were the teachers forgotten. Occasionally, in place of the regular teachers' meeting that was held once a month on Saturday mornings, a hike on the mountain was taken.

In an effort to measure results, the board found fewer absences on the part of both pupils and teachers and apparently a more cheerful and optimistic attitude on the part of all.

Most teachers and some parents know that the thing a child prizes most in them is that they are fair. Perhaps his definition of fairness is rather broad. It probably includes truthfulness, sincerity and sportsmanship. Nevertheless, the teacher or parent whom the child thinks is not fair has little chance. When it comes to insincerity, children seem to detect it intuitively.

The second year the slogan was "The Development of Character Through Sportsmanship." The president of the board offered a handsome loving cup to the school that manifested the highest spirit of sportsmanship during the session. A committee of citizens acted as judges, visited the schools, observed the conduct and attitudes of pupils in the classrooms and the lunchrooms, in assembly, in the corridors and at play. The committee also attended the interschool athletic contests and ob-

served the conduct not only of the members of the team but also of the pupils who were seated on the bleachers.

Much interest and rivalry were developed in this contest for the cup. Sometimes rather humorous things happened. Once at a high school football game when the rivalry and interest were at white heat, the children of neither school cheered when their opponents were penalized for a foul. Most of us suspected that down in their hearts they wanted to shout.

#### *Creating an Incentive for Work*

The presidents of our state colleges whose students have their annual games in our city have said that the emphasis on true sportsmanship in the public schools of Birmingham has had an effect upon their student groups.

Three years ago the Birmingham baseball team won the championship in its league and another Southern city won in its league. Much interest was aroused in the Little World Series between the two. An editorial writer who attended the games in both cities made the following comment: "The fans of our rival city are not nearly as good sportsmen as are the Birmingham fans. They are not generous with their applause when an opponent makes an unusually brilliant play. They 'boo' visiting players a lot more than the fans of Birmingham do. In our city when a pitcher strikes out a good hitter with men on the bags, the fans applaud the pitcher for his feat; they rather lean to criticizing the batter who has fallen down. One wonders if the fine sportsmanship campaign conducted for several years in our public school system hasn't helped our Birmingham fans to appreciate the importance of sportsmanship and courtesy to visiting players more than is normally the case. One doesn't usually visit a professional baseball park to find a high degree of sportsmanship in the crowd, but in Birmingham the type of sportsmanship displayed is unusual. In this respect our rivals are by no means the worst in the world but neither are they in a class with Birmingham."

Birmingham is an industrial city. We believe in work, though I must confess not all of our public school boys are overanxious to practice it.

In selecting the next slogan, "The Development of Character Through Work," the board made no attempt to define "work." Commonly, I think it was regarded as referring to manual labor only. In all schools opportunities were found, sometimes purposely created, for pupils to work. Many tasks hitherto left to janitors and maids were taken over by pupils. In one of the high schools the girls in the domestic science building asked that all the janitor service in that building be left to them. In

another high school the boys removed the tops from all old or abused desks, took them to the shop, smoothed them off and revarnished them. In the elementary schools cards were sent to the homes requesting parents to grade children on home duties and send the report back to the teacher.

An industrial leader addressing an audience of our teachers said, "What concerns industry most regarding the public schools to-day is the attitude of their product toward work."

We were not unmindful of the fact that work in itself may have little influence in the development of character. We agreed with the industrial leader that the attitude toward work is the important thing. However, we were convinced that one way, perhaps the best way, to create the proper attitude toward work is to work, and that it is the duty of our schools to provide systematically for work and to encourage the pupils to engage in it.

One of the encouraging results of this work program was the report made to the board by local industries that a smaller percentage of our boys who apply to them seek "white collar jobs."

Persons who live in an industrial city are in danger of losing sight of the value of the esthetic. "The Development of Character Through Love of the Beautiful" brought many attractive pictures, statues and bas-reliefs into our schools. School lawns are more attractive and the shrubs and flowers are better kept.

#### *Teaching Pupils to Be Thrifty*

The next year's slogan was "The Development of Character Through Thrift." This slogan appealed strongly to the chairman of our board who is a Scotchman. Special efforts were made to conserve school supplies, soap, crayon and pencils, and to care for textbooks which are supplied free. Perhaps the most noticeable effect of this slogan was seen in the school savings accounts. In many schools 100 per cent of the children were depositors. The total amount saved and on deposit in the bank at the end of the session was \$200,000. We believe a large number of our children have acquired the saving habit.

The next slogan was "The Development of Character Through Courtesy." In each of these slogans effort has been made to measure results. In this case we found it difficult to do so. No act in itself is courteous unless it is sincere. One must think kindness in order to be truly courteous. Nevertheless our department of tests and measurements set up a measure of courtesy. I visited one of the schools and witnessed the test being applied. Children were asked to come to the

office. The office door was closed. Did the child knock or enter without knocking? The principal was busy. Did the child interrupt him or wait for an opportunity to speak? A visitor knocked at the door. Did the child answer the knock? The visitor dropped her keys. Did the child pick them up? In leaving the office did the child pass between the principal and the visitor who were engaged in conversation? These and many other observations were made and checked.

#### *Other Achievements*

The board of education regularly has two meetings a month. In lieu of a midmonthly meeting the members decided to spend an entire day each month visiting the schools. Besides noting general conditions they especially observed the courtesy or lack of courtesy on the part of the children. Brief records were turned over to the department of tests and measurements. Five committees of the Parent-Teacher Association volunteered to render the same type of service.

For the following year the slogan was "The Development of Character Through a Study of Nature." Children in the schools were taught to behold the wonders of nature as they had not seen them before. They learned to protect and provide for birds and other harmless forms of animal life. Pets kept by pupils and teachers in classrooms afforded object lessons in the humane treatment of animals and nature was recognized as the handiwork of God which the pupil learned to notice, to admire and to revere.

The slogan for last year was "The Development of Character Through the Worthy Use of Leisure," and the speaker at the opening of the institute in September was Dr. Henry Turner Bailey, Cleveland, an author and lecturer of national reputation. He gave a splendid lecture on "The Magic Realm of the Arts." An interesting exhibit of children's hobbies was held in the public library, an exhibit that gave unmistakable evidence that the machinery of the school system has not succeeded in crushing out the initiative or the originality of the children.

When someone said to the old farmer, "You may lead a horse to water, but you can't make him drink," the farmer replied, "Yes, but you can give him salt and make him thirsty."

Our aim is to make the child thirsty for the worth while things of life and then to provide opportunities for satisfying that thirst. Through this, we trust, the child's character may develop normally and naturally.

These slogans have proved varied, interesting and effective. The yearly change of emphasis is cumulative, since an effort is made to retain the

good results of the preceding years with an additional zest for activities inspired by the new slogan.

As the oak each year adds another ring to make a larger, stronger tree, so each year's slogan carries on the good results of the preceding years. The sportsmanship cup is still offered and passes from school to school. School banking is kept up. Health and courtesy continue to be stressed.

What have been the results of this plan? Much yet remains to be done, but no brief account can adequately convey an impression of the changes brought about in the community through the general interest in these character development slogans set up each year by the board of education. We hope that we have a healthier community, that we are better sportsmen, that manual labor has been dignified, that we have a higher appreciation of the beautiful, that our savings bank accounts have increased more than a hundredfold, that we have at least given more thought to courtesy, that the widespread interest in the study of nature has resulted in a deeper appreciation of the world about us and a desire to aid in the conservation of nature's resources and that the children of Birmingham are devoting their leisure to things that are worthy.<sup>1</sup>

## The Place of the Textbook in American Education

Since the textbook determines largely what is taught our pupils, the educational interests of the pupils, therefore, must at all times be the primary consideration in appraising plans for the making and selecting of textbooks, says J. B. Edmonson, dean, school of education, University of Michigan. Selfish interests must not be allowed to deprive pupils of the best available instructional materials. In the selection of textbooks care must be taken to ensure that books are selected on the basis of merit. Free textbooks should be provided in all public schools in the interests of better educational opportunities for the children.

The state publication of textbooks is unwise, unethical and educationally unsound, says Dean Edmonson. He also questions the wisdom of legislation providing for state uniformity of textbooks, defends the theory that the educational unit for the adoption of textbooks should be the local unit of school administration and supervision and advocates the establishment of a strong commission of educators to eliminate unethical practices.

<sup>1</sup>Address delivered before the Detroit Rotary Club during the meeting of the Department of Superintendence in that city.

# Editorials

## One Way of Assuring More Jobs for the Unemployed

IN A recent article in the *New York Herald-Tribune*, Mr. Carr, who knows as much about the subject as anyone, estimated that there are over 2,000,000 children of school age employed in the various industries of this country. There are another million children who are not in school for one reason or another but who are not employed. All told there are 3,000,000 children between the ages of five and seventeen who are not in school. Suppose that they could all be provided for in schools adapted to their needs. There would need to be an addition to the teaching staff of the country of about 80,000 new members. There would also be need of 20,000 additional janitors and other functionaries. If the 2,100,000 children of school age who are holding jobs could be kept in school, there would be openings for upwards of 2,000,000 men who are now out of work. With the additional teachers, janitors and others required to operate the schools, there would be occupation for 100,000 additional workers.

Are the resources of our country adequate to provide an education for all children between the ages of five and seventeen? This question, more than any other, is agitating our citizens to-day. Taxpayers are answering the question in the negative with increasing vehemence. Educators and all who are interested in social welfare are answering the question in the affirmative with equal vehemence. We are now spending about 2.4 per cent of our national income for education, or a total of \$2,500,000,000. If we would extend the required educational period to seventeen, and get all children of school age into school, we would spend \$250,000,000 more than we are now spending, or a total of \$2,750,000,000—3.1 per cent of our national income. Is education vital enough to make us willing to spend a trifle over 3 per cent of our national income for its maintenance? We predict that all good citizens of this country will answer in the affirmative the question: "Shall we take all our children of school age out of industry and keep them in school until they are seventeen?"

When we inaugurate this program we shall devise a system of education for children who are not interested in or capable of deriving profit from so-called "cultural" education but only from a kind

adapted to their exceptional nature and to their practical needs. It would be a mistake to force all children into school and keep them there until they are seventeen if the work is of a general, theoretical and cultural character. It is wrong to hold a pupil in school when he is simply marking time, longing for the moment to arrive when he can escape and begin to do something that he feels is worth while and that will assure him a salary. Educators are not ignoring this problem and it may be safely predicted that programs of work can and will be devised that will meet the requirements of pupils of different talents and different needs; in fact, such programs are in operation now in many communities.

## Permanent Tenure for Teachers

ONE argument that is frequently advanced in favor of permanent tenure for teachers after a period of trial is that with permanent tenure a teacher can take root in a community and thus become an integral part of the life of the community.

As it is, in practically every section of the country, the majority of teachers never "settle down"; they do not build homes; they do not establish enduring social or personal connections in the neighborhoods in which they labor. They expect to take wing to-morrow, and so they are not stimulated to win the confidence and friendship of the patrons of their schools. They are birds of migration. They stop in any one locality only long enough to gain a little refreshment in order that they may continue their journey. As a consequence of this attitude, they never become acclimated in any community. They are more or less alien—in some communities entirely alien—so that they never feel at home with either pupils or their parents, or with the lay residents of the neighborhood. We have heard these comments almost *ad infinitum* about the itinerant teacher. The members of no other profession shift from one position to another so frequently as do the members of the educational profession.

We have had an opportunity to observe for a number of years the effect of these migratory habits of educational workers. In a certain county in a Midwestern state, the district system prevails in the towns and in the rural sections, and the ward system in the two cities. Separate boards of trustees administer the school in each district or ward. Each board hires and fires its teachers. No teacher has remained in any one school in that county for longer than eighteen months, that is, two years of nine months each. The prevailing fashion has been

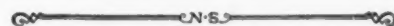
for teachers to shift to new positions after one year's service in any school. The salaries offered in the schools are not attractive and the social opportunities are not greatly alluring; consequently, teachers are ambitious to obtain positions elsewhere. It has come to be expected by the boards of trustees of the schools that they will have to hire new teachers every year or at least every second year.

What is the effect on the various communities in this county of the ceaseless migration of the teachers? No one can answer this question with mathematical accuracy or finality. Thoughtful persons in one or another community in the county have been asked whether or not it would be better to have a teacher remain permanently, or at least for several years, in her position. Varying responses to this question have been received. Some have said, in effect: "A teacher in our district has little interest in and practically no effect upon the life of the people in our neighborhood. They come here, they get as much money as they can, and at the end of the year they move to some other section. They don't care whether they have done the community any good or not." Others have said: "We get new life in our schools frequently. A new teacher brings in a new point of view, and we are all interested in her for the whole time that she is among us. If she should stay forever in the same position we should become utterly indifferent to her. We like to have a new person come into our neighborhood every year. The pupils do better with a new teacher than they do with an old one."

So there you are. Something may be said for and something against the itinerant character of our profession. We think that on the whole the argument runs against incessant shifting. But there are disadvantages in permanent tenure that need to be guarded against in any community in which this policy is being put into effect. We have heard superintendents, principals and laymen in these communities complain because teachers could hold on to their positions for life, although they were completely at variance with their pupils, the patrons of the schools and their neighbors. We have heard superintendents say: "We would give anything if we could replace this or that teacher, because she has lost her grip on the school; but we are on life tenure here and it would upset our work badly to have to go to the courts to dismiss a teacher who is clogging the machinery."

We stand for permanent tenure after an adequate period of trial; but a superintendent and his board of education should have it in their power to compel a teacher to move on when she has for any reason ceased to be a helpful member of the teaching staff. We favor the plan followed by one

superintendent who is working under a permanent tenure arrangement, that of shifting his teachers from one school to another when they are losing their hold in the school in which they are teaching. Certainly, permanent tenure ought not to be interpreted to guarantee that a teacher can remain in a particular school for life, if it appears to the superintendent or supervisory officers that she could be more useful in another school in the educational unit. In states where there are county instead of district units, a superintendent or supervisory staff or board of education should have the right, under a permanent tenure régime, to shift teachers from one neighborhood to another if they believe that it is necessary.



## A National Teachers' Relief Fund

THESE lines are being written as the public schools are opening for the new school year. Word comes from several communities that at the last moment teachers have been "let out." Boards of education are saying, in justification of their dismissal of teachers, that appropriations for the maintenance of the schools have been heavily cut, and the only way they can carry on at all is to reduce the teaching staff by combining classes wherever possible and abandoning special types of work that could be provided for in prosperous times but that cannot be sustained during this period of financial depression. It is being said that even though teachers have contracts for employment during this year, these contracts cannot be enforced if boards of education are deprived of funds with which to fulfill contracts. Whether this is the case or not, it is probable that most teachers, who find themselves cut off without due notice from their source of income, do not have funds with which to defend their legal rights in the courts, supposing they have such rights.

Now, look at the teacher who is dependent wholly upon his salary and who has been counting upon a continuance of employment this year but who finds himself, without any fault of his own, out of a job and out of funds, too. What sort of a turn can he make to save himself? None. There are more applicants for places in every other field than can be provided for. There is no use for the teacher to go around hunting for work in stores, or in manufacturing plants, or in professional offices, or even on farms. No one needs his services. Can a teacher who has no collateral go to a bank and borrow funds to tide him over until better times arrive? He cannot. If he is fortunate enough to be situated in a community in which

there is a cooperative fund from which teachers in distress may obtain a loan, he may be able to weather the storm. Otherwise, he must drift on to the rocks or depend upon public charity to keep him alive.

At the Los Angeles meeting of the N. E. A., Professor Bagley proposed that a national fund be immediately established to rescue teachers who are worthy of help. The members of other professions contribute to funds for the benefit of their colleagues who, for one reason or another, have fallen upon evil times. Even the actors, who are supposed to be the least thoughtful and the most carefree and indifferent of all groups, have built up a generous fund which is employed to lift unfortunate members over hard places. Certainly the teaching profession cannot think of being more remiss than the members of the dramatic profession in taking care of their colleagues who are the helpless victims of uncontrollable circumstances.

The NATION'S SCHOOLS unqualifiedly commends the movement to establish a national teachers' fund, from which those who have, without warrant, been deprived of an income may receive financial assistance until they can become reestablished in teaching positions.

The N. E. A. is, of course, the instrument through which a teachers' fund should be established and administered. We venture the opinion that every teacher who has a position this year would be willing to contribute, up to the limit of his resources, to a fund for needy and deserving members of the profession.

### Fighting for a Place in the Air

AT ONE of the holiday conventions, a resolution was passed asking that at least 15 per cent of the air channels be forever reserved for strictly educational broadcasting. When this resolution was being considered, data were produced showing that already there is a desperate effort being made by commercial interests to appropriate all of the air channels. The claim is made that general information is being sent out through commercial channels, although it is admitted that these channels are used primarily for advertising and propaganda of one sort or another.

If educational institutions are not alert and do not act at once to obtain opportunities for strictly educational broadcasting, we may discover before long that the air has been completely preempted by interests and institutions that have only selfish interests in the dissemination of information and that have no intention of transmitting unbiased,

unprejudiced knowledge. One conference in particular discussed the problems that are encountered by an educational institution in broadcasting knowledge from its laboratories, classrooms and studios and these discussions emphasized the pressure that is being made by commercialized interests to gain possession of all air channels and to shut out interests that have a purely educational character.

What should be done immediately is to see to it that a fourth or a fifth of the air channels is reserved for educational purposes to be utilized in ways that will be determined by experimentation designed to show that what is taught in elementary schools, in high schools and in colleges can be disseminated most effectively to students, young and old, in their own homes or in classrooms and laboratories in their respective localities.

The results of experimentation that have been carried on during the past year prove beyond a doubt that it is practicable to conduct educational work over the radio. It is not yet certain that all subjects taught in schools and in colleges can be advantageously presented to students at a distance, but it is certain that the more important subjects of instruction, such as the social sciences, can be successfully pursued by students who are a long way removed from the instructor and his classroom or his laboratory or his studio. Experimental work has not yet gone far enough to warrant the assertion that a student can make just as rapid and satisfactory progress in the pursuit of history, say, in his own home as he can in an elementary, high school or college classroom; but insofar as accurate data concerning this matter have been gathered during the past year, it may be inferred that the advantage in study lies with the home rather than with the classroom. We have evidence showing that some persons can do better intellectual work when they are in a group of workers, while other persons are retarded or inhibited in their mental operations when they are members of a group—they can make greater headway when they are alone than when they are conscious of people near by.

Further investigations along this line may convince educators that if courses are taught by radio, some students at a distance will gather in a local classroom and work together, while other students will remain in their own rooms at home and accomplish more than they could in any other way. Of course, there are benefits to be derived from education other than the mastery of subject matter, but it is possible that some types of students are hindered more than they are helped by a system that herds them into classes and teaches them en masse.

## Happy to Say—By WILLIAM McANDREW

WHEN speakers for the institute at York, Pa., come to the stage they face a cordial company of teachers extending without break from and including the front row back into the hall. The vacant seats are all behind. There is no dismal opening: "Will those in the rear please come forward." How happens it? Arthur Ferguson, the noble Duke of York, in charge of this educational army, billets each soldier to a lodging. Each assignment slip says: "The bane of public speaking is empty seats. Your courtesy to our speaker will be felt when you sit where indicated."

LEMUEL PITTS, principal of the Pueblo High School read what was said here about steering newspapers away from the exploded fallacy that children after the long vacation return to school, protesting. Lemuel gathered real facts and gave them to the editors. Result. Cheery newsprint congratulating youngsters, parents and the community, on the reopening of schools.

ONE doesn't go far in surveying the press before discovering that schools, teachers and superintendents owe a large part of their increasing respectability to a generous recognition by the newspaper. Let a schoolman bid for praise for himself and he loses this help for his schools.

A SCHOOL BOARD chooses dead men's names for buildings. Don't nag a superintendent into suitability for having his name over a school-house door.

THERE are few more valuable educational assets than that children naturally respect teachers; teachers respect their superintendent; the superintendent respects his board; and everybody respects all the others.

A SCHOOL FIGHT is the king of indoor sports but in the end usually the game bag has no life in it.

PRESIDENT HOOVER says the 1,010,232 teachers in the country represent the cream of national character. Hooray! But they are of not much use to my boy if the superintendent assigns him to a stand-still lady.

MONDAY is a bad day for a superintendent to be cranky on. The others are Tuesday, Wednesday—you know how to complete this.

THE OUTSIDE SPEAKER who tells school children, "These are the happiest days of your lives," doesn't show proper respect to his wife—or to education.

RIGHT NOW the most of the world's troubles are due to forgetting the truth that society is possible only on a foundation of unselfishness.

FOURTEEN separate speakers whose addresses appear in the newspapers this month assert that it is imperative to acquaint high school pupils with the political questions of the day. How about the answers?

WHOEVER says that controversial subjects should not be introduced into schools never goes to the polls—or to a ball game.

IF DISCUSSION were centered on what is right or wrong instead of who is, it would get us farther along.

GREAT is arithmetic! Whosoever has lived long enough to learn to count knows that his blessings far outnumber his misfortunes. One plus one plus one, day after day, equals a very respectable "ans." When you meet disagreeable persons, use your arithmetic and notice how few, by comparison, they are. Louis XIV in saying that by doing a favor you make one ingrate and a dozen unfriendly critics was poor in arithmetic.

WHAT are you whining about, brother? The hungrier you get, the better everything will taste.

I'VE never had any real trouble but I used to spend unhappy hours expecting some.

BEST shots of the month:  
An Ideal is an Idea with heart in it.—Louis A. Peckstein, dean, college of education, University of Cincinnati.

THERE is a good way of running the schools and a bad way. But there must be no such thing as a Republican board member's way, or a Democrat's.—William Bennett Munro, California Institute of Technology.

NO INTELLIGENCE test ever told what a child will do led by a teacher of sympathy, hope and encouragement. A measuring worm can hump himself all over but he never brings you anything.—James Ross, sage of Sandusky.

## Schoolhouse Planning: Building the Ultimate Plant

By ARTHUR B. MOEHLMAN, Professor of School Administration and Supervision, School of Education, University of Michigan

SEVERAL major objectives have been reached so far in the development of the school plant program. First of all the specific character and the developmental tendencies of the community have been studied. The educational policies have been outlined and developed upon the basis of such information. Possible growth has been determined within the limits of probability as we know them. Careful appraisal of the existing plant has ended with a three-way classification of those buildings to be retained, those to be gradually eliminated and those to be eliminated as soon as it is financially feasible to eliminate them. The ultimate plant has been considered and laid out with respect to physical organization and the probable new centers have been determined. A number of activities remain to be carried out before the program can be considered complete.

The prognostication of general growth has provided a large picture of the future, well framed but with scanty detail. If the existing conditions under which the study was made continue, the ultimate amount of service indicated by the study will probably be required. This general projection into the future, however, cannot determine with complete accuracy the annual program of growth or the specific direction such growth will take. The achievement of the ultimate plant must proceed upon a careful study of details, in this case of the individual building districts. The general survey provides the framework. Detailed and continuing annual restudy of every unit is the only advisable method by which actual construction should proceed.

### *Developing the Plant Program*

The last general division in the development of the ultimate school plant is a study of the technique whereby the annual plant program may be objectively developed and projected without unwise expenditure of public monies and with the least danger of community criticism. In the development of the annual program two major factors, sites and buildings, must be considered, as well as several minor factors relating to the physical plant.

The sites that will probably be needed in the

future have been determined. When and how should they be acquired? This is still a moot question in practice. Theoretically it is good planning to obtain as many of the future sites as possible while they are still in acreage and the prices are low. Shape, size and selection may be better controlled. After a study of sectional growth it is well to divide the sites into three groups, those that will be required within the first, second and third five-year periods. In this manner the purchase of sites may precede the need by not more than two or three years and the burden of acquisition may thus be spread over the entire developmental period.

### *Study of Land Values Is Important*

A careful study of realty values and the development of a map on which these price groups may be accurately plotted are essential. Generally speaking, such a study will disclose in practically every situation definite price zones in accordance with the distance of the land from the business center of the community. If funds are available it is also desirable to project this study backward over five-year periods, preparing maps for each year studied, and to determine the probable rate of land value increase in the past. Correlation of these data with the probable rate and specific tendencies of growth will offer a reasonable index for the future if existing conditions continue. The gradual spreading of the sites acquisition program to keep a little in advance of these price changes will represent a practical application of a sometimes embarrassing theory.

While the general theory of early site acquisition is economically sound, it is difficult in most instances to avoid community criticism of wholesale site purchase unless the public relations program is developed so that each section of the district is intelligently informed and its leaders understand the reasons behind the purchase. Once purchased, such sites should not be hidden but should be attractively marked by medium sized signs (one on each major boundary) naming the site, its drawing limits and its purpose and stating that a school will be erected upon it as soon as a certain number of children are living within the

area. This procedure will permit those who are planning to build or buy houses within the area to select their location intelligently with respect to the future school. It will eliminate to a large extent the emotional reactions of individuals who have purchased houses without the realization that a school building will be erected close to their property. Altogether, this informational procedure has considerable merit in public relations.

The first task in the actual purchase of sites is to determine their probable sales value. This information may be obtained through private appraisal, by a realty board or agent and by the correction of assessment values based upon recent sales in the district. The study of value plus the probable increase in value as stated and the probable rate of need will provide a financial picture upon which the acquisition program may be formulated. Sites may be acquired by direct negotia-

It is a real protection to the board of education and to the people. All arguments are heard in public and the case for need is legally established. If the planning can be done sufficiently in advance of need, the practice of obtaining sites by the exercise of the right of eminent domain is strongly recommended.

The need for physical plants will be determined by the rate of growth within the individual elementary, junior high and senior high school districts. For this purpose the general prognostication of total and school population growth is of relatively little value. A different technique must be employed. Since all of the future districts have been laid out to secure a well balanced and reasonable drawing power for future buildings, each of these districts may now be considered as a unit and a growth record started for each.

This record should contain the number of available sites classified according to size, purposes and building restrictions. From an accounting standpoint these sites may be considered as a debit. The second type of information is the number of sites already filled, which represent a credit. The probable population under existing subdividing conditions may then be tabulated and the existing population determined. Land utilization maps on a large scale are desirable to present an easily recognizable picture. As the sites are built up these maps will gradually be filled in with different colors, each one indicating a particular type of development such as single one-story, single two-story, double houses or apartments.

#### *How Child Accounting Studies Will Help*

Information in regard to new buildings may be determined at census time, through the child accounting activity or from the city assessor's records, or it may be reported monthly by the schools. If these records are kept continuously the task is not too heavy. The initial development of the records is somewhat costly. However, they will more than pay for themselves in the prevention of errors, in making it possible to withstand realty or community pressure for unwarranted building, and in providing a background for scientific annual plant projections. The information gleaned from these studies may be tabulated and graphed with respect to both cumulative and annual growth. Taken as a whole, they offer a beautiful picture of development and provide the superintendent and the board of education with complete data upon which to prepare their annual budget requests for physical accommodations for increased enrollments.

Age-group location of individual children may be spotted upon a secondary map. To secure the

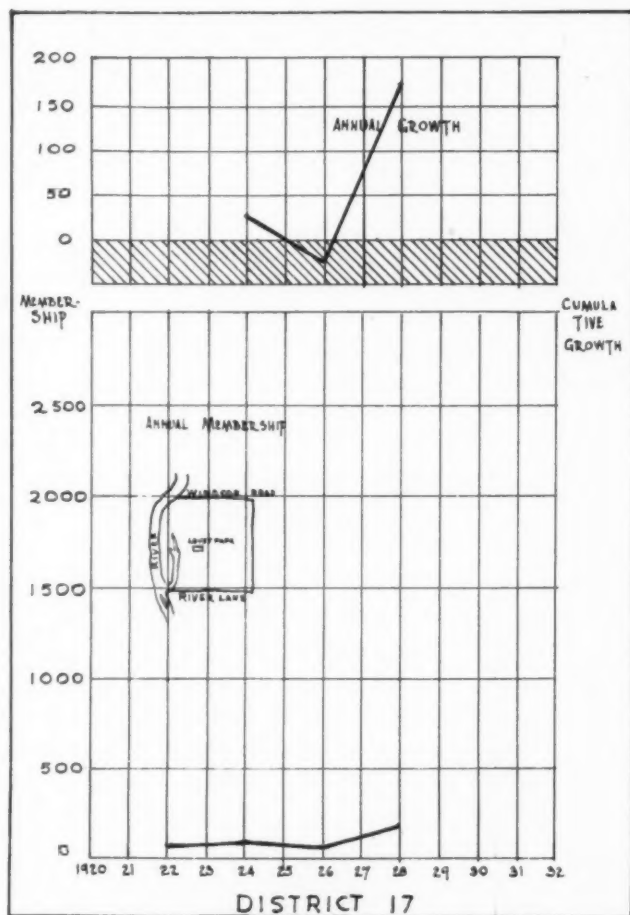


Fig. 1.

tion with owners, by securing options through a direct agent of the board or through a realty organization and by condemnation. The method used will be determined by community tradition and practice. Although condemnation is slow, it represents ultimately the only acquisition procedure that is completely above suspicion and criticism.

best results these maps must be kept constantly up to date.

While general growth may be estimated within reasonable limits of accuracy, the areas in which this specific growth will take place cannot be determined in advance. The facts must be tabulated and considered as they occur. Districts vary greatly in individual growth. Some are regular and some irregular. Each one shows peculiarities due to tastes, follow-the-leader practice, realty pressure and religious, racial, cultural and economic reasons. Long range forecasting for individual districts is fraught with danger.

Several illustrations of these differences may be given, selected at random from one community. Fig. 1 represents a relatively new district that is only one-fourth built up. While the cumulative growth for the past seven years has been fairly constant, showing a steady increase, the annual

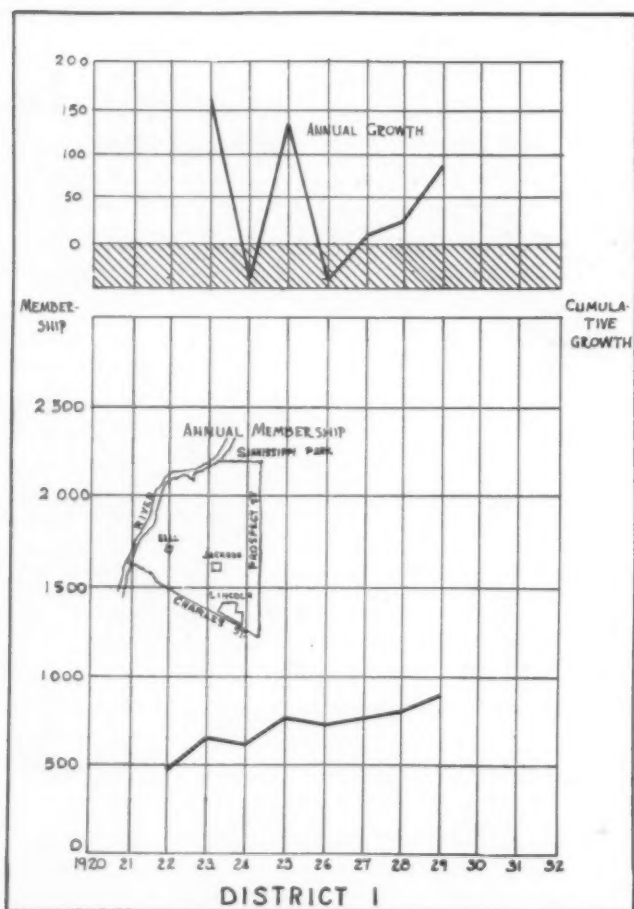


Fig. 2.

growth, shown at the top of the illustration, is much more significant. It indicates a certain amount of growth, a year of no growth and then a remarkably sharp rise.

Some of the reasons for this particular situation may be analyzed in terms of commercial realty programs. The chances are fair that this rate

of growth now established for a period of three years may continue. There is no way of assuring this fact. Building in a district of this type should be fairly conservative until the tendencies of several more years are available. Another reason why child growth may lag behind actual land utili-

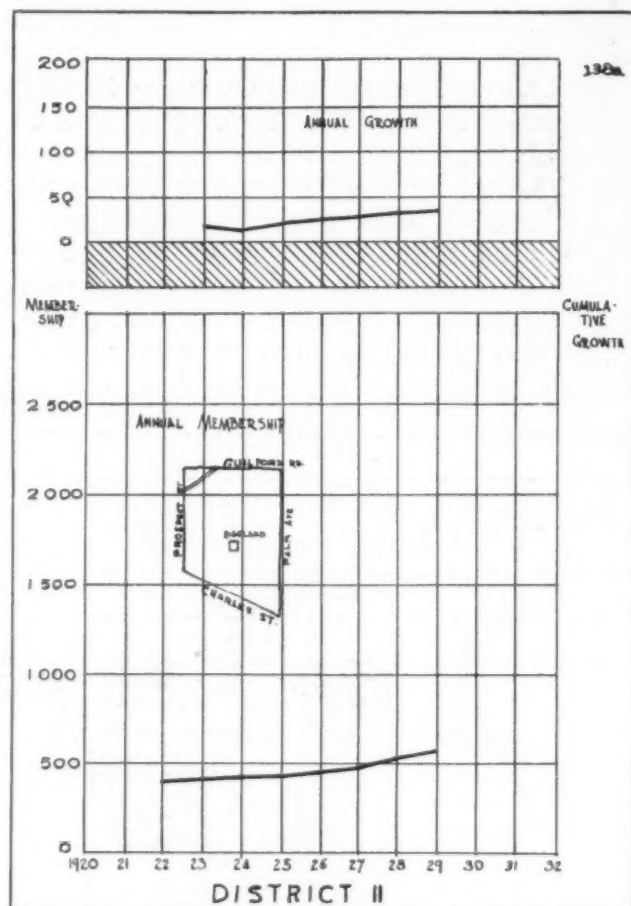


Fig. 3.

zation in new areas is the fact that new areas are most likely to be settled by newly married people who have no children as yet of school age. Adequate census records would indicate not only the number of children below the elementary school age but also whether husband and wife are both employed. In the latter instance the chances are good that the need for school facilities will lag greatly behind building.

Fig. 2 represents a district that has passed through the stages indicated in the first presentation. The district is approximately three-fourths occupied. The annual variations in growth up to 1926 are obvious. Since that time the annual increase has been fairly constant. These extreme fluctuations are modified somewhat in the cumulative rate. Ultimate future needs for this district may be more safely plotted than in the first district considered. Even under these circumstances it is well to permit certain older facilities

to work themselves out before designing the ultimate plant.

Still another type of growth is indicated in Fig. 3. The district is slightly more than half filled. Its annual development has been conservative and steady. The character of the type, its racial composition and its economic status indicate families of moderate size. Upon the basis of past experience it is easier to determine the probable ultimate need here than in the case of either of the first two presentations.

#### *Applying the Data to the Problem*

As these research activities are progressively performed, a mass of data respecting need is quietly accumulated. After these detailed studies have been made it is possible to reassemble the units and study the large picture again, this time with its details more plainly sketched. Integration and interpretation should offer a progressive picture of annual physical requirements by districts. Since it is questionable whether it is wise to build much more than three years in advance of probable need this criterion will be a major determinant in project classification.

After the tentative annual development program has been completed, it is again desirable to review and reclassify all of the projects for the first five-year period as absolutely essential and desirable. Into this secondary classification of new projects must also be fitted the program of replacement and remodeling. The need as finally established must be further analyzed in terms of financial ability and in most cases further readjustments made.

Finally, in the development of the annual plant program for replacement and new work, the general approach should be conservative. Psychologically, it is difficult to explain empty seats and rooms to a critical minority or an unfriendly element. It is far easier to demonstrate economy and better planning when faced with the pressure of overcrowding. This is wrong theoretically and represents just another instance where departure from theory in application is immediately desirable because of neglect of an intelligently conceived and skillfully carried out continuous program of community education. Although the average executive evinces great impatience when the necessity for such complete statistical study of need is shown to be necessary, yet the calm and leisurely attitude of the scientific investigator over a long period will be more effective and much more safe than the application of any high pressure, "go-getter" psychology. Social planning and satisfying the need must of necessity be somewhat slower than private activity.

## No Fixed Type of Posture, Study Reveals

In making public its conclusions from a study of more than 2,200 men and boys, the United States Public Health Service states that there is no uniform type of "posture" or standing position that may be defined as "good." The various postures of people in this study were found not to be related to their physical impairments.

"The primary characteristic of all the postural relations studied," it is concluded, "is that of variability and this variability is particularly manifest in the presence of widely different postural characteristics in the same individual."

Protruding abdomens were found among very young children, whose posture is "somewhat different" on the average from that of older children and adults. Late in life, the protuberant abdomen often returns, and among old people it is exceptional to find a posture that could be regarded as satisfactory from an esthetic point of view, according to the findings in the study.

"No adequate conception of posture beyond a purely esthetic point of view is possible without establishing a definite relationship with health," it is stated.

Each of the 2,200 men and boys studied was given a careful physical examination and three photographs were taken of each person, nude. These photographs showed profile, front and back views. The ages of the subjects, all of whom were of native born parentage and not deformed, ranged from two and one-half to seventy years, but about 56 per cent were between six and seventeen years old.

No fixed type of posture could be found.

#### *Strength and Posture Not Related*

No information was secured as to distribution of weight on the ball and heel of either foot, because of the inadequacy of the method employed. Correlation of the posture measurements on the photographs and the strength tests indicated no appreciable relation. Findings suggest that strength and posture are not closely associated.

An almost complete absence of correlation between the posture measurements and the customary physical measurements on the body was one of the striking features of the study. It must nevertheless be recognized that accurately directed exercise for postural improvement as, for example, the strengthening of the abdominal muscles to aid in the correction of an exaggerated lumbar curve, may be of assistance in improving defective posture and indirectly general health.

Your Everyday Problems:\*

## Homogeneous or Heterogeneous Grouping—Which?

By JOHN GUY FOWLKES, Professor of Education, University of Wisconsin

**D**URING the past five years much doubt has arisen concerning the effect of homogeneous grouping on the basis of the intelligence quotient. As is true of much of our educational practice, this question needs much experimental treatment before a valid answer can be given. The following discussion is a report of an experiment concerning the matter.<sup>1</sup> It is hoped that this report will be of help to school administrators with respect to the problem of pupil classification.

The B 7 grades in the Roosevelt and Wilson Intermediate Schools, Glendale, Calif., were given the National Intelligence Test and the New Stanford Achievement Test, Form W, at the beginning of the B 7 grade. The pupils of the Wilson School were then classified into three groups of high, average and low intelligence rating. These three groups were then considered as the experimental groups and were homogeneous on the basis of I. Q. The pupils of the Roosevelt School were

classified into three groups on the basis of I. Q. also, but each of the three groups contained the whole range of intelligence ratings found within the class. In other words they were heterogeneous on the basis of I. Q. and were the control groups in the experiment.

In the Wilson School the teachers were in sympathy with a plan of homogeneous grouping on the basis of I. Q., inasmuch as that has been the type of organization followed for the past four years. The course of study adopted in the system is designed for a three-level assignment program. Each teacher sought for and employed to the best of her ability instructional materials planned to meet the needs of the intelligence level found within the particular group involved.

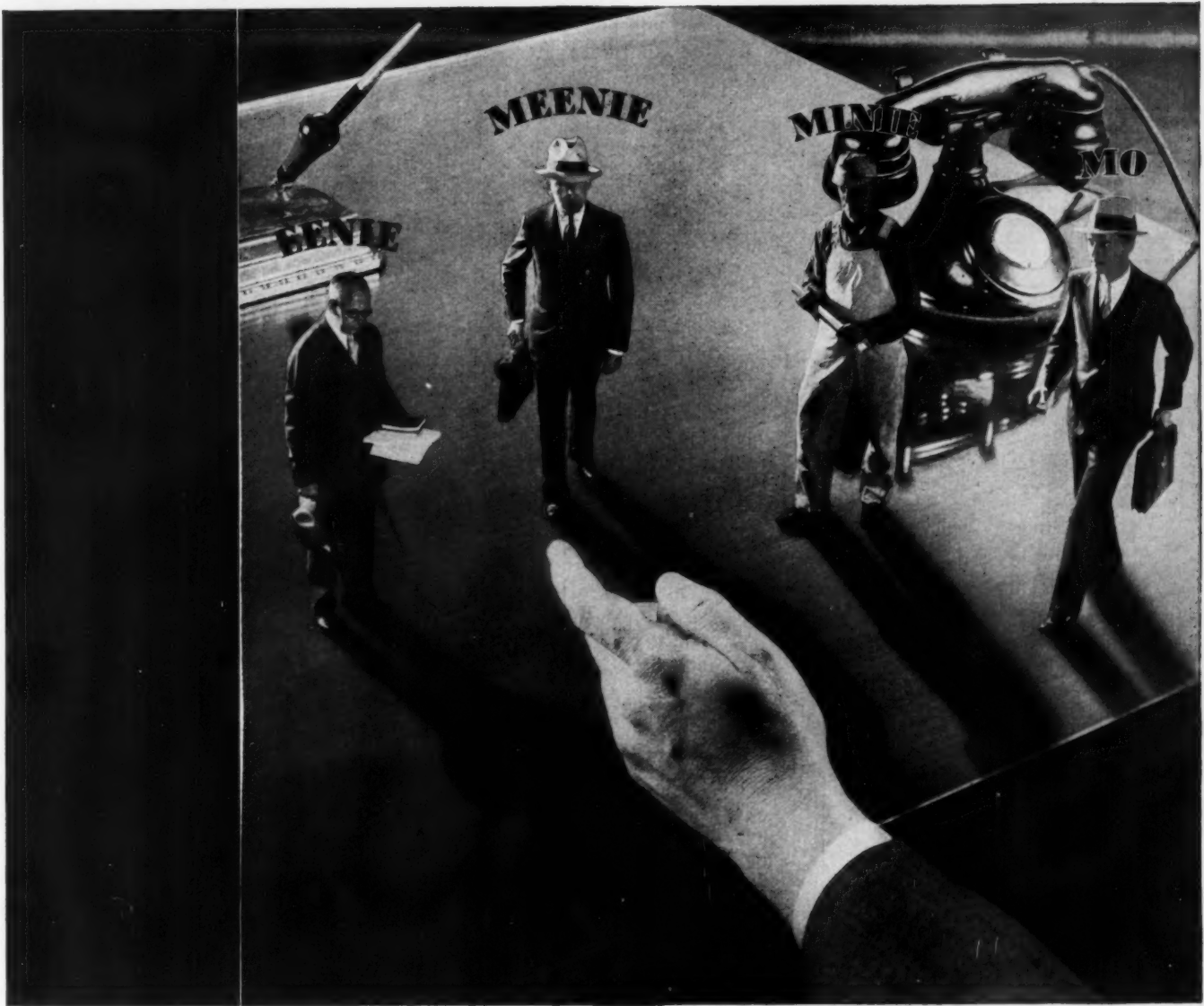
In contrast with this, the teachers of the control groups used the course of study organized for the "average pupil." Individual differences in the control groups were treated on the basis of the needs of the individual pupil as they developed and were discovered within the class. It should be noted that the teachers of the control groups also were trained in homogeneous procedures but were willing to conduct their work with the heterogene-

\*Discussions in this department deal with problems that frequently confront principals and superintendents. Inquiries on problems of this nature should be addressed to Doctor Fowlkes.

<sup>1</sup>The data for this discussion were supplied by Chester B. Sanderson, graduate student, University of Southern California.

TABLE I—DATA SHOWING THE MEANS, STANDARD DEVIATIONS AND CRITICAL RATIOS FOR THE LOW, AVERAGE AND HIGH INTELLIGENCE RATING, HOMOGENEOUS AND HETEROGENEOUS GROUPS

Section	Group	Total Reading	Spelling	Language Usage	Literature	History and Civics	Geography	Total Arithmetic
Low	Means Homo.	3.5	2.0	4.82	7.12	1.52	2.12	2.69
	Het.	4.6	1.88	5.73	9.42	9.62	2.69	3.08
	S. D. Homo.	10.42	3.77	15.10	15.40	14.35	9.59	12.80
	Het.	14.50	4.74	11.65	9.27	10.10	6.95	13.60
	C. R. Homo.		.218			3.88		
	Het.	.014		.475	.895		.513	.228
Average	Means Homo.	.35	4.35	7.87	7.18	4.69	3.12	-2.50
	Het.	4.06	6.87	11.56	7.80	7.80	2.5	2.50
	S. D. Homo.	8.80	0.00	19.70	12.05	8.50	2.09	12.10
	Het.	9.78	6.60	12.88	11.20	9.85	8.30	18.30
	C. R. Homo.		2.74	1.64	3.13	4.51	.525	
	Het.	3.26						2.27
High	Means Homo.	5.37	2.78	4.63	3.15	2.41	-1.55	1.66
	Het.	4.63	2.41	12.04	7.22	5.00	2.78	6.48
	S. D. Homo.	7.45	1.73	2.30	7.72	9.25	7.40	12.88
	Het.	11.38	1.98	9.77	7.87	7.72	3.27	12.68
	C. R. Homo.	.493	.773					
	Het.			4.73	2.84	1.84	4.04	1.76



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Why not rule out chance entirely? Write us for the name or names of the most expert floor contractors in your city or state. As the world's largest manufacturer of smooth-surface floorings, we make it our business to know the accomplishments and capability of leading floor contractors in all sections of the country.

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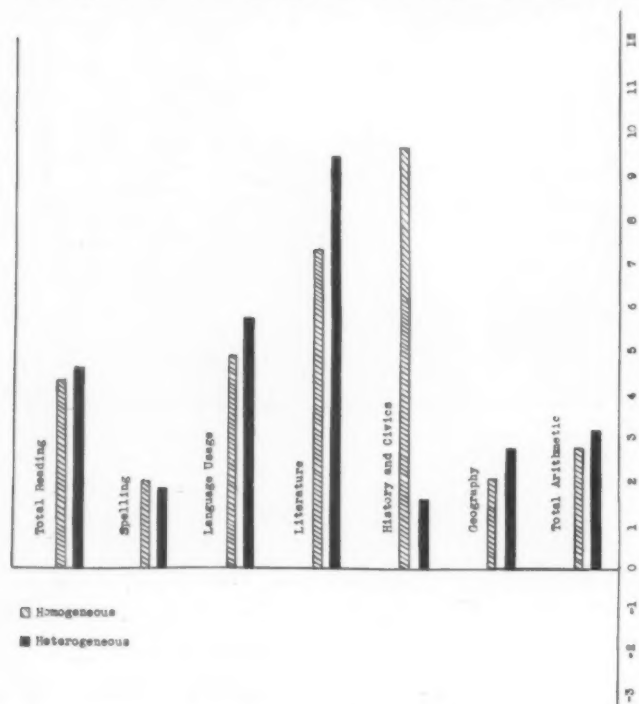
Write us for the names of these firms — and for full information on our Bonded Floors installation service, in which Sealex materials are backed by a Guaranty Bond, issued by the U.S. Fidelity and Guaranty Co. CONGOLEUM-NAIRN INC., KEARNY, N. J.

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ous groups for the time of the study upon the "old type" of mixed classes.

At the beginning of the semester, the New Stanford Achievement Test, Form W, was given, to obtain an objective measure of the scholastic achievement for each pupil. The subject score on each of the ten tests of the battery constituted the initial responses for each pupil. At the close of the semester, the test was repeated, using Form V. The subject scores on this second test gave the final responses for each pupil. In the standardization of the tests a gain of four points score on any test is a normal gain for a B 7 pupil for one semester of work. Hence the difference between the initial and final responses for any one pupil on any test of the battery would represent his progress in scholastic achievement.

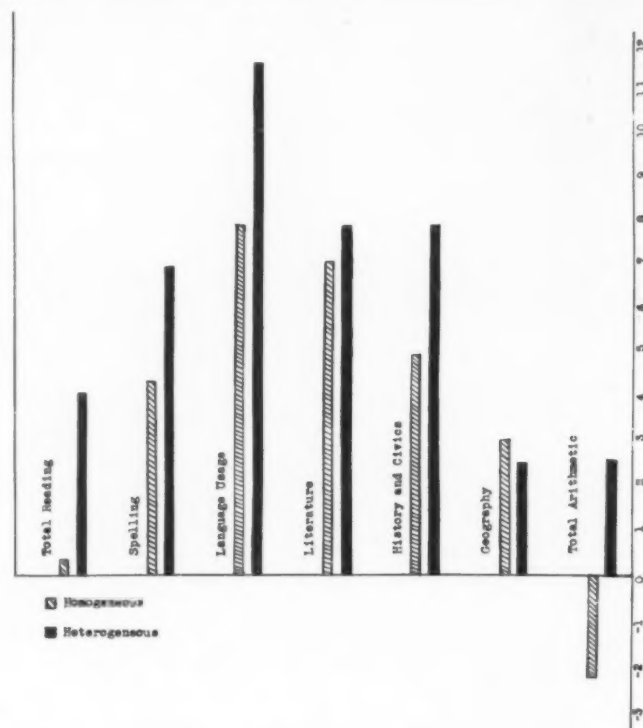
The homogeneous groups were composed of three sections of low I. Q. ratings, (from a to b), average I. Q. ratings, (from c to d), and high I. Q.



Graph 1. Mean subject gains on Stanford Achievement Tests for homogeneous and heterogeneous low intelligence groups.

ratings, (from e to f). The heterogeneous groups were organized in three sections, each containing pupils with I. Q.'s ranging from the lowest to the highest, (a to f). Therefore, the problem of establishing equivalent groups as the basis of comparing the homogeneous and heterogeneous groups arose. It was solved by selecting from the heterogeneous group those pupils whose I. Q. range was from a to b as a low I. Q. equated group. In a similar manner the c to d range of I. Q. made the average group, and the e to f range composed the high

I. Q. group. After equating, there were 26 pupils in each low group with the range of I. Q.'s from 80 to 104, the mean 97.6 and the standard deviation 6.58. In the average groups there were 32 pupils with the range of I. Q. from 105-131, mean



Graph 2. Mean subject gains on Stanford Achievement Tests for homogeneous and heterogeneous average intelligence groups.

115 and standard deviation 8.66, while in the high groups there were 27 pupils with the range from 120-165, mean 140.5 and standard deviation 11.03.

The next step was to determine the gains in subject achievement for the three levels of mental ability included under the two plans. Since the Stanford test has two reading tests, one for paragraph meaning and one for word meaning, these two were combined to make a single total reading score. In like manner the arithmetic computation and arithmetic reasoning tests were combined to make a total arithmetic score. Since the subject of physiology is not formally taught in the B 7 grades in this system, the eighth test on physiology and hygiene was omitted in this study. This leaves for consideration seven subject scores to be compared in the low, average and high groups. These subject scores were: total reading, spelling, language usage, literature, history and civics, geography and total arithmetic.

The differences between the initial and final responses to each of the seven subject tests were next found for each pupil. The gains from these differences between scores having been determined, the average gain for each group was found.

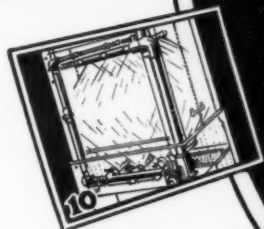
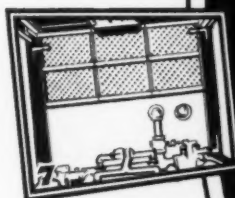
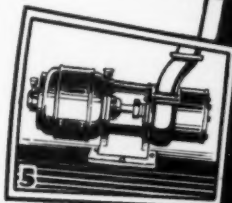
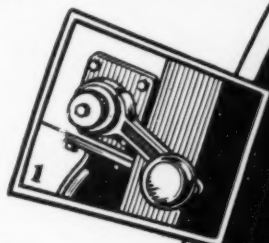
# Already Setting the Pace!

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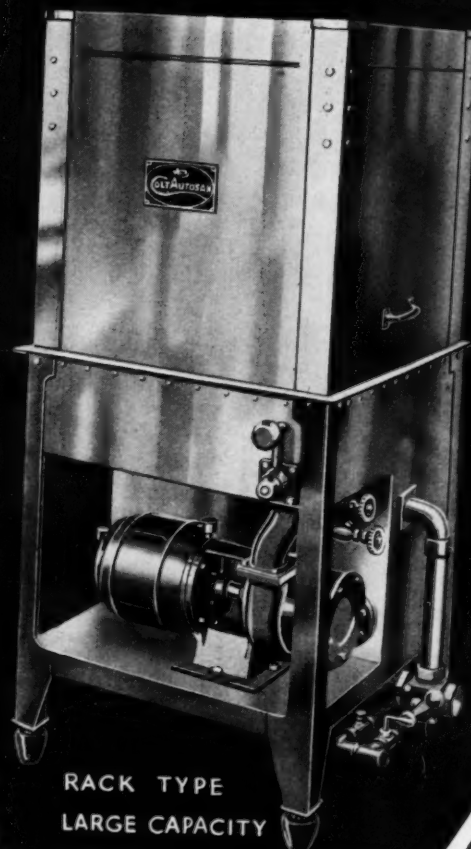
An immediate success—the answer to the demand for a high quality, low priced dishwashing machine designed for small kitchens. Model "R-1" is a step ahead of the field—due largely to these

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The variability of the means was found also as was the standard deviation of the means.

To find the relative gains in achievement between the low, average and high heterogeneous and homogeneous groups, the differences between the means for each group were determined. This procedure revealed 16 out of the 21 differences as being in favor of the heterogeneous plan, as against 5 differences in favor of the homogeneous plan. The question then arises: Are these gains significant gains or due only to chance? This was statistically answered by computing the critical ratio for each of these differences between the means.<sup>1</sup> It was found that of the sixteen gains made in favor of the heterogeneous grouping, five were significant in that they had a critical ratio of 3 or more. These cases were total reading, literature, history and civics in the average groups and language usage and geography in the high group. A significant gain was found in just one case for the homogeneous plan—history and civics

and heterogeneous groups for each of the seven subject scores treated are given in the table.

The foregoing paragraphs, then, may be briefly summarized as follows:

Out of the twenty-one comparisons, there is only one case of significant differences in favor of homogeneous grouping—that of history and civics in the low I. Q. group.

Five cases of significant differences favor heterogeneous grouping. These are: reading, literature and history and civics in the average group, and language and geography in the high group.

Slight gains were made by the homogeneous group in four other instances as against eleven such slight gains in favor of the heterogeneous.

In this study the weight of evidence is clearly against the plan of homogeneous grouping on the basis of the I. Q.

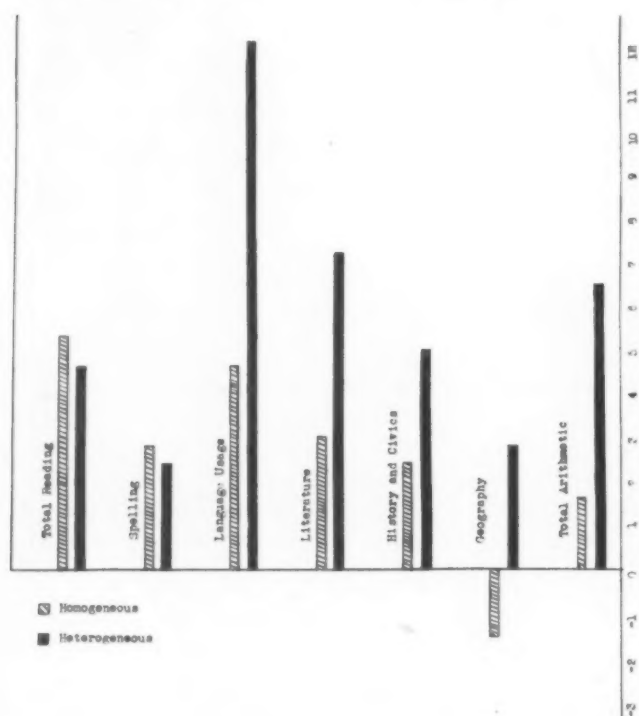
## The Value of Business Courses in Secondary Schools

"It is now generally conceded that business education of secondary grade has two definite functions," Vierling Kersey, director of education, state of California, declared in a recently published statement.

"First, it must give boys and girls that fundamental business knowledge which better prepares them to be efficient users and consumers of goods and services. Every individual, strictly speaking, is in business. He earns money and spends and invests it. Therefore, he should understand something about relative values of services and commodities, the media of exchange and the institutions through which it flows, such as banks, loan associations, trust companies and mercantile establishments.

"He should know how these institutions may serve him. He should understand the simple principles of credit and when to use them. He should know how to make a budget for his personal use and the value of family budgeting. This involves the principles of saving and proper spending. He should know how to check his bills and accounts and how to keep a simple but accurate account of his personal transactions. He should know something of the elements of salesmanship and personality development so he can better sell his services.

"Second, business education must give boys and girls certain knowledge that relates to specific occupations in the business field so they may be employable. Skill in the use of business machines or in the writing and transcribing of shorthand illustrates this type of training."



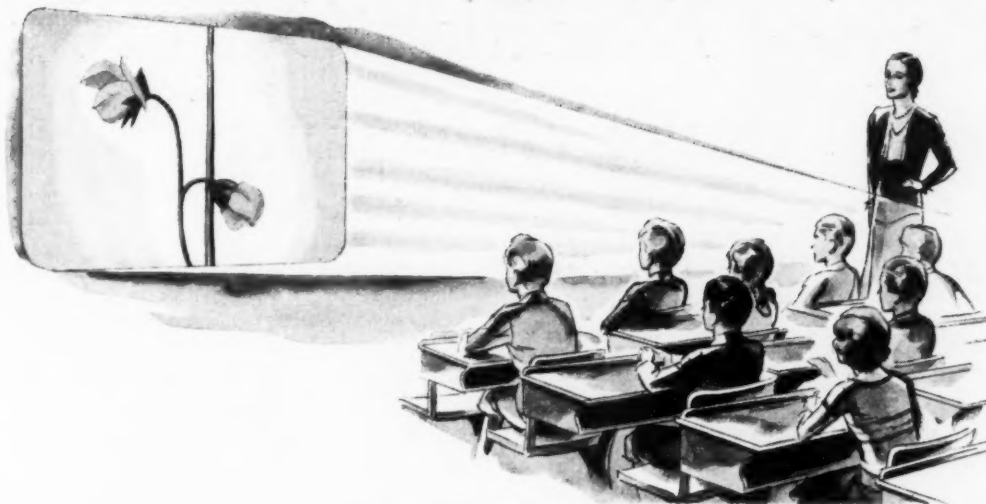
Graph 3. Mean subject gains on Stanford Achievement Tests for homogeneous and heterogeneous high intelligence groups.

in the low group. Therefore, out of the 16 gains in favor of the heterogeneous plan, only 5 proved by the critical ratio method to be significant differences, while of the 5 differences in favor of the homogeneous plan only one was significant.

The mean scores for each of the seven tests are shown in Graphs 1, 2, and 3. The means, standard deviations and critical ratios for the homogeneous

<sup>1</sup>The formula used here is the one given by Helen Walker in The Standard Error of a Difference, Jour. of Ed. Psychol. 20:53-60.

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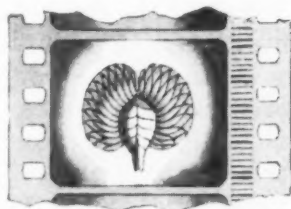
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## Practical School Administration:

# Helping Education Out of Its Present Dilemma

By PHILIP C. LOVEJOY, Chicago

WITHOUT doubt the world to-day, is in a serious dilemma. Education itself, being such an important part of life both socially and economically, is in a dilemma. Is this because we have had no plan? Has the sailing been too smooth and results achieved with too little effort? Is the world in its present confused and maladjusted state because of or in spite of education?

Why should there be an overabundance of crops in some parts of the world and starvation in others? Why have the demands of the nations been so great as to force almost confiscatory taxation in some parts of the world?

### *Have the Schools Failed?*

When we analyze the position in which education in America finds itself, we are led to believe that it is in as much of a muddle as are world affairs. In some communities teachers have not been paid since last April, yet those communities are presumed by the public at large to be rich. In some cities not a single bank is in operation. The school year has been cut to the bare minimum provided in the state law and the teachers are on a month to month basis. To swim on Saturdays in the school pools costs the children five cents each. In one locality children are compelled to do a hundred problems in arithmetic on the last afternoon of school. In one city four elementary schools stand almost side by side. That community to-day is paying heavily for those schools built so closely together and which were financed through bond issues. As a result of the mounting debt the children of that city will get less education. Many valuable teachers have resigned or have been notified that their services will no longer be required, and even then it does not appear that the revenue will equal the expenses.

M. R. Keyworth, superintendent of schools, Hamtramck, Mich., in his monthly editorial in the *Hamtramck Public School Bulletin* for September emphasizes what I have in mind. He writes as follows:

"The schools must honestly admit that they

have failed in the past to provide the training which people must have to solve present day problems. It still remains to be demonstrated that there can be economic justice under a competitive system; that people can govern themselves without dishonesty and corruption; that individual freedom can be preserved untarnished by exploitation.

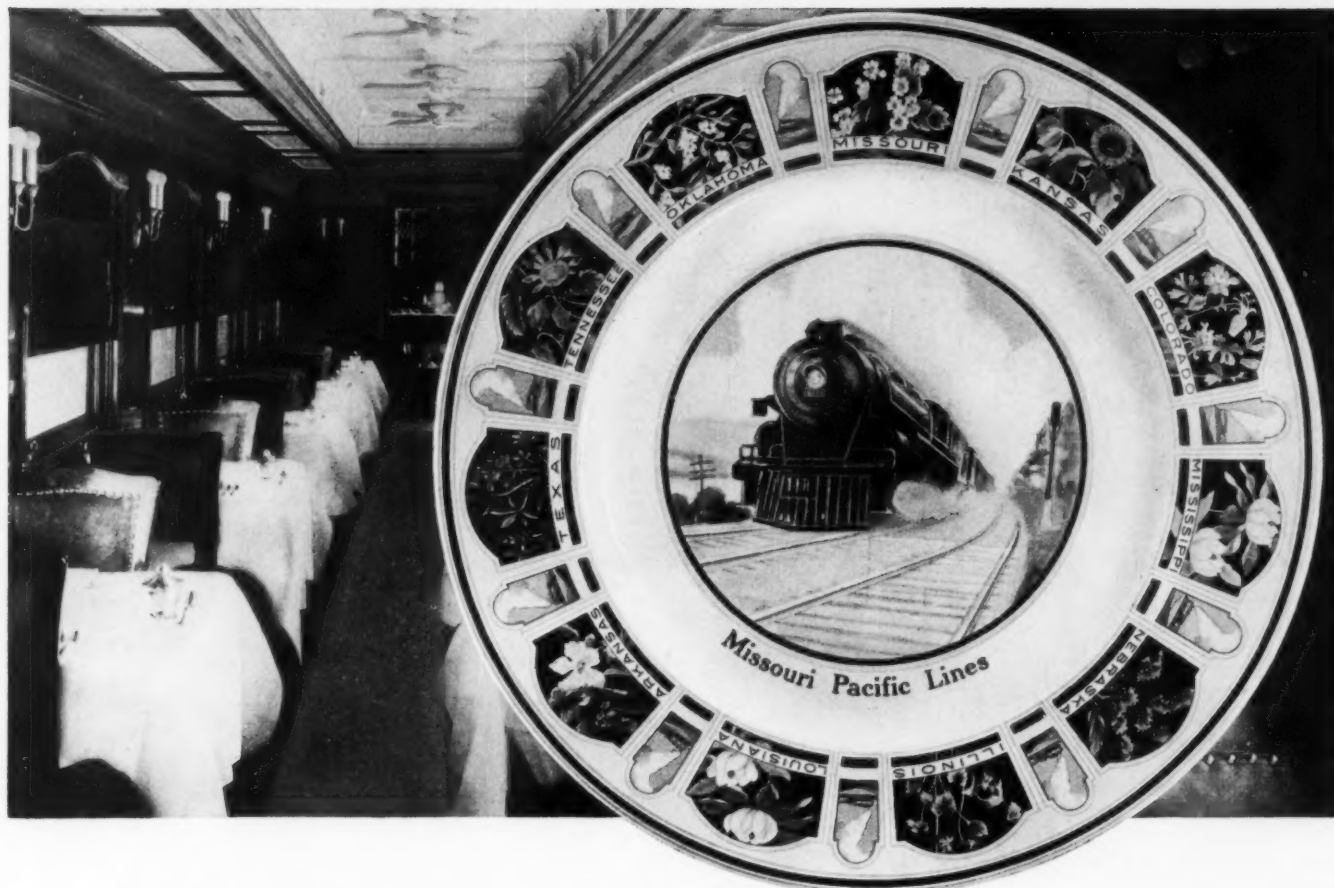
"Insofar as training is a factor in making this country safe for democracy the public schools assume a responsibility this year that is most critical. The public schools must face the situation with courage and intelligence. They must produce results that cannot be overlooked or discounted.

"Was it ever more apparent that the products of training of the schools of a democracy must be emotional stability, sympathy, knowledge, reason, faith, cooperation, service, creative effort and honor? Was it ever more obvious that the lack of these leads to disaster both political and economic?"

Here then is a challenge to the school of a democracy not only for the current year but for many years to come. Too often have we regarded the three R's as the basic reason for which the public school existed. In this we have done our job well and have become as one of our overseas critics announced, "The best informed but the worst educated country in the world."

### *Trained Leaders Are Needed*

Someone has suggested that the reason so many banks are in difficulty is because we do not have enough trained bankers, individuals who are so well versed in the technique of bank management as to be able to steer their institutions successfully through financial storms. I wonder if the reason we are having difficulties in education is that we have far too few trained educational administrators, men who have been well grounded in all phases of finance, public relations, personnel and method. Have we not failed to realize that we are educating citizens in order that they may take their rightful place in the democracy? Have we not frequently organized our school on autocratic



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that the extraordinarily small breakage that does occur inevitably can always be replaced quickly and economically.

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bases? Has not the time come for us to look ahead a little in education and see what is going to happen?

Let us consider briefly some aspects of management in education. What are the functions of a board of education? Recently a great educator suggested that boards of education were a great hindrance in American education. He did not infer that this was necessary but rather that the manner in which the majority of them now function tends to make them a hindrance in the realization of the best educational development within a community. In these columns many times we have set forth the real functions of a board of education—legislative or policy making and appraisal of product. We have repeatedly suggested that the average board of education is not equipped to be an executive group. That function is technical and must be delegated to an expert who is usually designated the superintendent of schools.

#### *Petty Jealousies Must Be Eliminated*

We have gone still further by suggesting that the system best able to perform the functions for which it was created is the one that is organized on a unit basis. Because schools in the past have failed to train men along the lines advocated by Mr. Keyworth, petty jealousies have entered the field of public school administration. The result has been a series of controversies with reference to the value of two or more heads to a school system as opposed to one head. One group has argued that the usual superintendent of schools has been trained only in educational technique and therefore is incapable of handling the business affairs of the school system. Another group has argued that those especially charged with the business side of the school system have had little or no educational training and therefore are unable to handle the business affairs in a manner that will contribute to the supreme function of the entire system, namely, the development of citizens well trained for life in a democracy. Isn't it time to bury the hatchet? Society appears to be in a serious dilemma. Possibly the educational technique of the schools is responsible. Many schools themselves are embarrassed financially. Possibly the business technique of these self-same schools is responsible. It would appear, therefore, that each side is open for improvements. Schools organized on the dual basis find themselves in difficulty as do those organized on the unit basis.

I do not care how many business managers a school system has, provided they are necessary. I do not care how many persons the system employs to develop the educational technique, provided

they are necessary. What I am concerned about is that the system be organized on a functional basis; that its policies be stated; that the board inhibit itself from entering into matters purely executive in character, rather confining itself to the adoption of policies and the appraisal of results. If the best business practice is to be followed, the board will employ a single competent executive who will be charged with the successful operation of the schools in accordance with the adopted policies. Size will determine how many assistants will be necessary and the executive will be expected to delegate the details of administration to these assistants.

Manifestly we have failed in developing an adequate program of public school relations. Many parents think of modern schools in terms of what they themselves experienced years ago. They recall the many utterly foolish things demanded of them and they assume that present day education is the same. Couple this with the peculiar demands made on children and there appears a double reason to criticize, unless school administrators will take the public into their confidence and tell them the whole story in terms that can be understood.

Many articles have appeared in *The NATION'S SCHOOLS* pertaining to the most advanced methods of handling public school relations. These times will probably make us think more clearly on the topic. Philip Snowden told the British people the whole story, even though it was not pleasant to hear. As a result, the Britishers, seeing his sincerity and honesty, rallied to the cause, making new sacrifices in order that their nation might not perish as a world power.

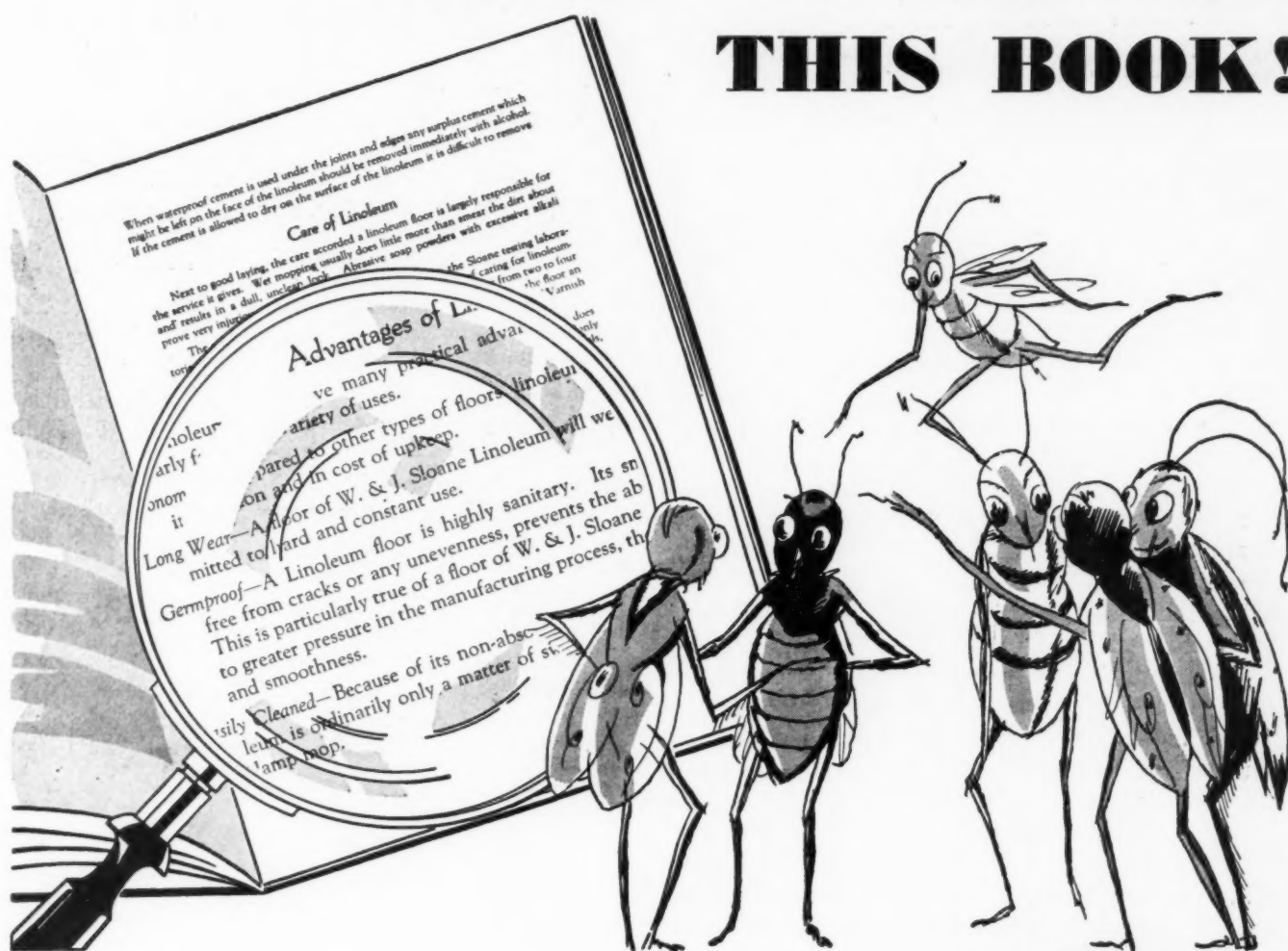
#### *Telling the Public the Whole Story*

Let's stop the cover up policy; let's tell the whole story; let's open the finance books to the inspection of the general public. Let's forget the politics. One school board recently admitted that it awarded certain kinds of insurance as a political favor. What confidence can a public have in such a system? In the meantime, the boys and girls suffer. The American public is unanimous in its demand for the best public school opportunities for its children. As school executives, let us adopt a wide open factual plan of telling the public the whole story. Let us dare to oppose a school board politically inclined and stand by our professional ideals for the sake of the children and the future of the democracy.

The third great problem of management in public education is finance. Only recently have courses in this subject been offered in universities. For some reason or other, a man well grounded in educational technique was supposed to become a

# The School Board

## MUST NEVER SEE THIS BOOK!



The microbes in Public School No. 3 are terrified! They've discovered the paragraph in the W. & J. Sloane Linoleum Book that spells doom for microbes. Life won't be worth living if their School Board ever gets hold of this book and decides to modernize and sanitize those old-fashioned floors. No wonder they are anxious to keep the news from you. But — psst! — we'll smuggle the book to you through the mail if you say the word.



For a free copy of the interesting book—"Linoleum—What It Is—How It Is Made—In the Plant of the W. & J. Sloane Mfg. Co." address Advertising Dept., W. & J. Sloane, 577 Fifth Ave., New York.

# W. & J. SLOANE LINOLEUM

successful superintendent. Often he lacked business ability. For that reason schools went to business for experts to handle their financial problems, little realizing that the problems of school finance did not parallel those of business. As a result, many irrational solutions to problems of educational finance have frequently been advanced. It now develops that finance in education is for one purpose only—the facilitation of the instruction of the individual child in accordance with his abilities.

In the past we have spent much time making odious comparisons with other school systems while all the time we have failed to realize that four or five dozen variables always entered the problem. Some day we shall be able to parallel the dollar spent with the results achieved, when we know more about measuring the real product of the schools. Soon we are going to understand that economy in education must not be merely financial. There is a difference between educational or social economy and financial economy. At the present time we are apt to think only of financial economy, with the result that the next decade is likely to witness individuals seriously lacking in the training needed to handle world problems.

We must adopt a superior system of control of educational expenses. The best methods of educational budgeting will appear in our systems and we shall not hesitate to obtain from local industries all the advice and suggestions they may care to offer. The budget will be so carefully constructed that we shall dare to submit it to the leaders of our communities and challenge them to find a single item that should be eliminated. If we can't explain and justify this item to their satisfaction we shall be willing to take it out. Apparently there is money enough in this country for educational expenses. A recent survey showed that three-quarters of 1 per cent of our national income was being spent for the church;  $1\frac{1}{2}$  per cent for education;  $4\frac{1}{2}$  per cent for government;  $8\frac{1}{4}$  per cent for crime; 11 per cent for investment; 14 per cent for waste; 22 per cent for luxuries, not to mention the cost of living and certain other items.

#### *A Sound Plan Must Be Formulated*

In all probability we shall have to find ways of providing better rewards for educational personnel. These will include both financial and non-financial incentives. Of one thing we must be certain—the personnel must receive its reward when it is due.

Detailed and serious studies will have to be made concerning the sources of revenue. In one

state there is a community with \$40,000 back of each child in schools, while in another community in that same state there is but \$2,000. Tax ratios and inequalities must be studied. Our methods of assessing must be made scientific. There must be equality of opportunity in accordance with ability.

Why not arrange our school system so that a pupil may enter at any time and graduate at any time—when he has completed a given course? Is there any reason why graduation should occur but twice a year? Is there any reason why all must take a four-year course in high school? It is entirely possible that a fourteen-month course for some would be of great value.

Probably more than ever, we now see the need of a sound plan. By and large, the school men of this country have desired outstanding and successful school systems. They must regird themselves to fight the forces tending to make the school a failure. The schools of the future will be as fine as the executives permit them to be.

### Porto Rican Schools Reach Turning Point in Financial Condition

The turning point in the depressed financial condition of the Porto Rican educational system has now been reached, Pedro A. Cebollero, assistant commissioner, asserts in a survey of education in the island just published by the Office of Education.

Since 1925, when a total of \$6,815,959 was expended on schools, there has been a steady decline to \$5,386,923 in 1930, the survey discloses. Marked progress, however, occurred from 1899, when American educational influence first entered the island, to 1920.

School attendance increased in Porto Rico from 21,873 in 1899 to 147,472 in 1920, and stood at 193,396 in 1930. Population during the thirty years increased from 953,243 to 1,543,913. There were 525 teachers in 1899, a total of 3,286 in 1920, and 4,451 in 1930. Classrooms expanded during the thirty years from 525 to 4,690. Expenditures stood at \$288,098 in 1899; arose to over \$6,000,000 in 1920, and steadily dropped to approximately \$5,300,000 in 1930.

The year 1930 thus marked a turning point in the educational history of the island.

Plans are already made for a redirection of effort along lines of practical usefulness; for a program of rural uplift; for a policy of consolidation and intensive work in place of extension at the risk of dilution; for a broadening of the sphere of action of the school so as to make it a factor in shaping the life of the community.

# Saves everywhere...



Thorough cleaning . . . quickly . . . without raising dust.

## ...and everybody

**T**HERE is not a corner of any modern school where the Spencer Central Cleaning System cannot save every day in the year.

In the corridors—during class time—its powerful suction and lightweight tools pick up the tracked-in dirt quietly and quickly, before it has a chance to spread.

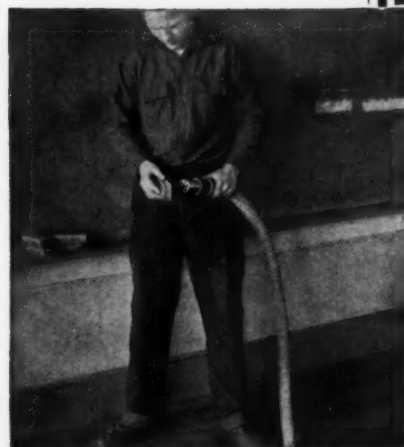
In the rooms, it gets under and around desks easily—removes chalk dust and dead air—provides positive cleanliness.

In the basement—it cleans all kinds of surfaces—and provides remarkable savings by cleaning boiler tubes as illustrated above.

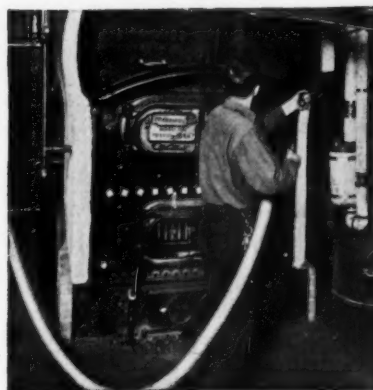
But the biggest saving is not in dollars—it is in the precious welfare of the children who attend your school. Clean air and clean rooms mean health and high morale.

School Experts and Architects agree on these points and invariably recommend Spencer.

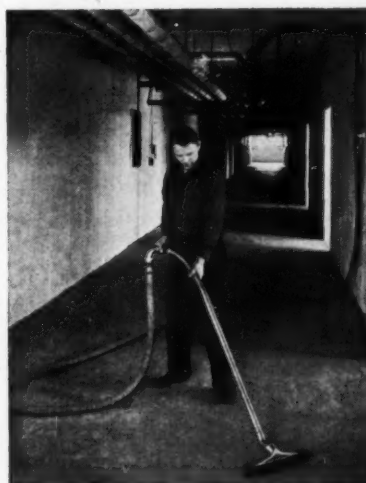
Let us send you the facts.



Showing the use of special eraser cleaning tool.



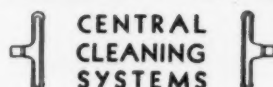
The Central Cleaning System used for cleaning soot from boiler flues.



Even the basement is easily kept dustless.

## THE SPENCER TURBINE CO.

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REPRESENTATIVES IN 50 CITIES

## News of the Month

### American Education Week Will Focus Interest on Schools

American Education Week, which will be celebrated in the public schools from November 9 to 15, represents a concerted effort on the part of teachers everywhere to increase the appreciation of the public for its schools. Because of its extensive observance and the cooperation of many nationwide organizations, the interest of the press, the radio and the pulpit, it offers an effective means of beginning or strengthening a continuing program of interpreting the needs, aims and achievements of the schools.

For ten years the interest in the observance of American Education Week has steadily increased. It promises to become a great national festival during which American citizens redevote themselves to the ideal of popular government based upon an enlightened citizenry.

### Record Attendance Indicated for Superintendents' Meeting

About five thousand sleeping room reservations for the Washington convention of the Department of Superintendence, February 20-25, 1932, have been made. Fourteen of the principal hotels are reserved to capacity. Single rooms in all hotels are exhausted. Correspondence regarding reservations should be addressed to Augustus Gumpert, director, Washington Convention Bureau, 1730 H Street, N. W., Washington, D. C.

### Noted Educators Join Illiteracy Committee

Two distinguished educators have recently joined the National Advisory Committee on Illiteracy to engage in important field service. They are: Dr. Randall J. Condon, former superintendent of schools, Cincinnati, and an outstanding leader in the National Congress of Parents and Teachers; Dr. Charles G. Maphis, director, institute of public affairs, University of Virginia, and chairman, Virginia State Advisory Committee on Illiteracy.

Doctor Condon and Doctor Maphis will take part in statewide conferences in every state to assist in organizing both the state and local committees and for further promoting and enlarging the scope of the campaign to blot out illiteracy.

Cora Wilson Stewart, chairman of the executive committee, says that the two will initiate the first direct work of the national and state committees since the census returns on illiteracy have been finally assembled. The census figures show that there are 4,283,753 persons in the United States who can neither read nor write.

### Two New York Schools to Install Radio and Sound Equipment

The increasing importance and interest in supplementary aids in teaching has been pointed out by innovations to be adopted in the new \$1,600,000 Port Chester High School, Port Chester, N. Y., and the Brooklyn Technical High School, Brooklyn, N. Y., where arrangements have been completed for the installation of sound systems, public address systems and radio distribution.

In both schools the talking picture reproducing equipment will be in the main auditorium to allow for visual and oral education through the speaking film and for the showing of subjects of special pedagogical, historical or industrial value. The public address system in both schools will be placed in the auditorium for sound amplification and to assure the intelligible transmission of sound to all parts of the hall.

Radio distribution will be made to all classrooms. In the case of the Brooklyn institution this involves 130 distribution points and in the Port Chester school sixty-seven distribution points. By means of this radio distribution special announcements can be made from any central point to all rooms of the building at the same time or special radio programs can be broadcast to one or more classrooms at any time. At the Port Chester High School two receiving sets are being installed allowing for the broadcasting of two separate programs in different classrooms according to varying educational needs. A double turntable to run special records that can be broadcast from the main auditorium to all classrooms is also being installed.



Hon. Morgan F. Larson, Governor of New Jersey,  
Addressing the Boy Scouts

### Stimulating School Spirit

is one of the many uses for Wright-DeCoster Sound Amplification Equipment. For all large outdoor and indoor installations, the No. 9 Horn with No. 207 Speaker are recommended. This outfit is surprisingly effective for addressing mass-meetings, pep-talks, cheer-leading, singing, drills, etc., and to increase the enjoyment of audiences at concerts, games and athletic events.

### WRIGHT-DECOSTER Reproducers

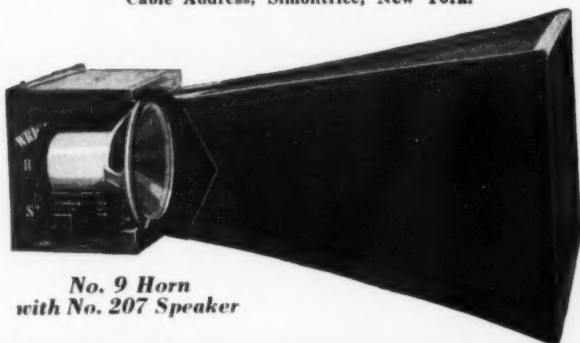
are famous for their fine tonal quality, clearness and distinctness with any desired volume. More and more schools are finding sound installation a necessary part of their school equipment.

Write for complete information and address of nearest sales office.

### WRIGHT-DECOSTER, Inc.

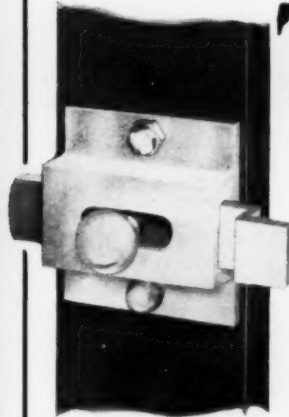
2247 University Ave., St. Paul, Minn.

Export Dept., M. Simon & Sons Co., 25 Warren St., New York.  
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No. 9 Horn  
with No. 207 Speaker

## The Toilet Partition Latch that Locks-out Trouble



Only by a thoro investigation and comparison of the seemingly insignificant parts can the buyer of Toilet Partitions differ-

entiate between a worthy product and one of questionable value. Proof of a Toilet Partition's value can be definitely determined in this way.

As an example, we present the Mills Trouble-Proof Latch, thru-bolted to the door. *Die-cast latch box.* Solid, strong latch-bar, held in position, closed or open, by a friction slide-spring. Absolutely impossible to lock doors from outside. Why be satisfied with Partitions that have the troublesome old-type semaphore drop latch, when it costs less to install Mills Partitions with Mills exclusive innovations.

Two new bulletins on requests or see Sweets.

### THE MILLS COMPANY

"A Mills Metal Partition for Every Purpose"

Offices — Factories — Toilets — Showers — Dressing Rooms

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Representatives in All Principal Cities

**MILLS METAL**  
TOILET PARTITIONS

## News of the Month (Cont'd)

### Dr. David Starr Jordan, World Famous Educator, Dies

Dr. David Starr Jordan, chancellor emeritus of Stanford University, and dean of American university presidents died at his home in Stanford University on September 19. Doctor Jordan was eighty years old.

Doctor Jordan was a conspicuous figure in the educational world for more than half a century. He served as president of Stanford University from 1891 to 1912 and as chancellor for three years.

Many honors were conferred on him for his activities in behalf of peace, education and science.

### Merits of Ph.D. Degree Are Under Investigation

The merits of the Doctor of Philosophy degree with its present requirements and implications as a necessary qualification for teaching in American universities and colleges are undergoing the scrutiny of the Office of Education.

Accepted by many heads of institutions and educators as an infallible symbol of both intellectual and teaching capacity, a reaction has arisen that has led the office to investigate its intrinsic worth.

"Educators have been brought face to face with a growing criticism of the Ph.D. degree insofar as its teaching prerequisites are concerned," a statement from the office emphasizes. "Held over the heads of prospective college professors as the first achievement for advancement, scanty attention has been paid to its real value until recently.

"Yet often the course of instruction for the degree is so narrow, distilled and highly specialized, centering largely on research, that holders of it are either failures as teachers or unsatisfactory teachers. Some institutions have set up a Doctor of Education degree to distinguish research from teaching qualifications. However, because of the importance attached to the Ph.D. degree, a complete investigation of it is considered necessary.

"The graduate schools in some of our larger centers have come to recognize a new type of graduate student—the college trained business man, or man of affairs, who finds it advantageous to take graduate courses in special fields of interest, just as the physician or surgeon takes his postgraduate

courses in medicine and the various specialties.

"Considerable discussion has taken place regarding the objectives or aims of graduate instruction in view of the large number of graduates who enter the field of college teaching. It is a question whether the Ph.D. degree or even the master's degree does not fit the individual more definitely for research work than for disseminating knowledge in the classroom. Much criticism has been directed against the alleged weaknesses in classroom instruction of teachers holding this degree."

### Chicago Public Schools Wage Fight on Blindness

A new activity has been instituted in the public schools of Chicago this year—that of preventing blindness among the school children. The schools now have about 300 pupils in their sight-saving classes.

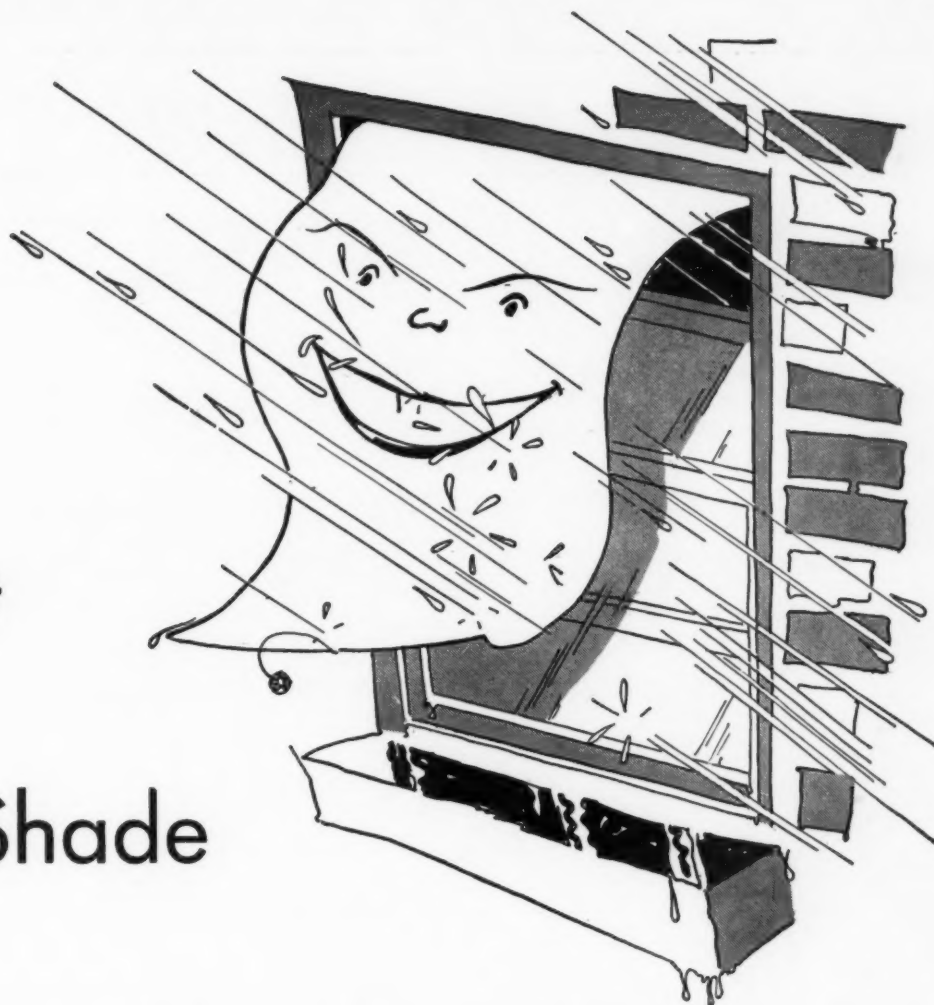
According to Supt. William J. Bogan, these children are not blind, but they may become so if they are not properly treated. Marjora Wood, who has made extensive studies of methods for conserving the sight, will offer counsel to the teachers in each of the sight-saving rooms and in many cases will assist the pupils.

### Kansas Pupils Will Benefit by Cut in Textbook Prices

The Kansas State School Book Commission has ordered a 25 per cent reduction in price of state published textbooks, it has been announced by Gov. Harry Woodring. The commission acted upon the suggestion of the governor, who pointed out that with a surplus of \$149,861 net profits on operation of the state printing plant up to June 30, 1931, the commission should distribute this net profit back to purchasers of school books through reduction in prices charged during the current school year.

Roland Boynton, attorney general, rendered a decision that this reduction was legal. According to Governor Woodring the saving to purchasers of books will be approximately \$64,000 a year, and George A. Allen, state superintendent of schools, estimated that 300,000 school pupils would be benefited.

# RAIN won't hurt this Window Shade



**S**UDDEN STORM, beating rain,—some windows in a large building are always forgotten in the general scurry to close windows. And their shades get rain swept. Rain makes a streaked, soiled ruin of the average shade. But not so with "Tontine Shade." It is waterproof—and blandly impervious to rain spots.

Tontine Shades are washable, too. When in the natural course of events they get soiled, just have them scrubbed. That fact alone will save you hundreds of dollars in replacement costs.

It's the way they're made—they're impregnated with pyroxylin, the same basic substance used in the famous Duco finishes. It makes Tontine Shades washable. It also gives them their beautiful smooth finish, and makes them extra durable. They don't streak, fray, or pinhole. They keep their color. You can depend on them for years and years of service.

That's why hundreds of buildings the country over—

schools, hospitals, apartments, hotels, office buildings and all such—are equipped with Tontine Shades. They stand up under hard usage. And they can be washed.

For complete window shade satisfaction have your TONTINE shades mounted on TONTINE Rollers.

We'll be glad to send you swatches of Tontine Shades. Your name on the coupon below will bring them to you by return mail.



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Erected in 1925 and at that time equipped throughout with Tontine Washable Shades. They're still in use, those shades. And will be for years to come. Regularly they are taken down, scrubbed, and put up again clean and fresh and new looking.

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**THE WASHABLE WINDOW SHADE**

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Desk N.S. 6, Newburgh, N. Y.

Please send me samples of Tontine Washable Window Shades and complete information about them.

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Consult the Classified Business Directory of your telephone book for the authorized TONTINE dealer in your city, selected for his reliability

## News of the Month (Cont'd)

### Additional Schooling Is Urged to Relieve Unemployment

A nationwide campaign to encourage young persons to continue their education and to keep all under sixteen years of age in school, as an unemployment relief measure was launched recently by the President's Emergency Committee for Employment, according to an announcement by Fred C. Croxton, acting chairman.

The program is being carried forward with the united support of practically every national education organization, representatives of which attended a conference to arrange final plans. Immediate action to help pupils continue their studies and to encourage those who graduated from high schools and colleges only this year to remain for further courses is contemplated, Mr. Croxton said in the report.

The acting chairman declared that the younger persons were especially handicapped under present circumstances by the necessity of competing with more mature workers. He urged the conference members to impress upon educational institutions also the necessity for increased effort in the development of guidance programs for pupils who are still in the habit forming period of their lives.

#### *What Conference Hopes to Achieve*

Objectives adopted by the conference include:

1. To take advantage of the present period of unemployment and part-time employment by encouraging the greatest possible utilization of opportunities for preparation for future positions and for the enrichment of American life.

2. To keep all children under sixteen years of age in school in this time of surplus labor and increasing demands of industry for skill and judgment.

3. To encourage undergraduates and members of 1931 high schools and college graduating classes to remain in school.

4. To urge that increasing effort be made by schools and institutions of learning for guidance programs that will direct young people not only into fields of usefulness, but into fields where their services will be in demand.

The conference likewise determined to encourage school authorities and legislative bodies to maintain adequate school facilities in the face of

the present emergency. An effort also will be made to coordinate the activities of all organizations which have a contribution to make toward attaining these ends.

Appeals will be made to every local community to use all possible resources to encourage and help undergraduates of secondary schools and colleges to continue their training this fall.

Replies so far received by the President's committee from state superintendents of education indicate that the school authorities are alive to the need of making special efforts to keep young men and women in school during the present abnormal economic period.

For the most part state authorities heard from are expecting about an average school attendance this year.

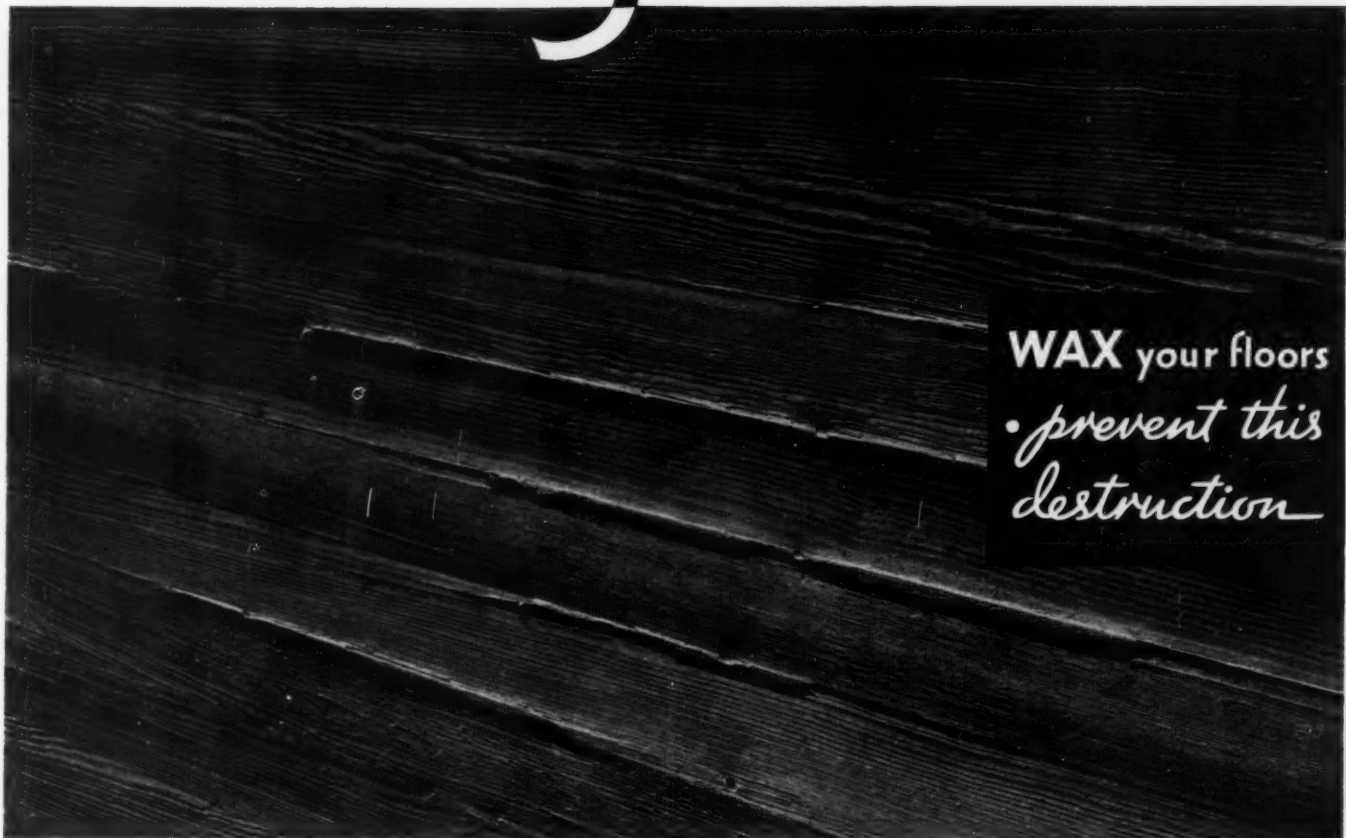
### Fewer Schools in North Carolina but Property Values Rise

North Carolina had 5,825 schoolhouses valued at \$110,421,315 during the school year 1929-30, of which 3,460 houses were for white children, valued at \$98,946,273, and 2,365 were for colored children, valued at \$11,475,042, according to a report issued from the office of the state superintendent of public instruction.

While the white schoolhouses decreased from 5,115 to 3,460 since 1904-05, the appraised value of school property increased from \$2,712,112 to \$98,946,273 in that twenty-five-year period, in which the average value of the white schoolhouses increased from \$530 to \$28,597, and the average value per child enrolled increased from \$8.34 to \$162.92. In the Negro schools in the same period the number of schoolhouses showed a slight increase, from 2,261 to 2,365, while their value increased from \$470,806, average value per schoolhouse \$208 and average value per child enrolled \$3.16, in 1904-05, to \$11,475,042, average value per schoolhouse \$4,852 and average value per child \$44.20, for 1929-30.

The 3,460 school buildings included 3,104 in the county systems, valued at \$52,736,972, and 356 charter schools, property valued at \$46,209,301, for the white schools, and of the 2,365 Negro school buildings, 2,186 are in the county system, valued at \$4,800,496, and 179 are charter schools, valued at \$6,674,546.

YOUR *scrubbed* FLOORS MAY LOOK ALL RIGHT TODAY...  
**but what will they look like  
in 5 years?**



**WAX** your floors  
*• prevent this  
destruction*

● Your floors may not look like the one pictured above. In fact, they may be in very excellent condition today. But the problem of floor maintenance, for all kinds of floors, is not so much what they look like today—as *what will they look like in 5 years?*

● If your floors are preserved and beautified the modern, economical way—with *genuine Johnson's Wax*—you never need worry about them. They will last indefinitely, safe against destruction. And the cost of maintaining them is little—less than other methods. Think of never having to scrub your floors!

● If, however, you are still using old fashioned methods, such as scrubbing, then we suggest you consider the ultimate cost of replacement.

● When you have considered this cost, and the greater beauty waxing affords, you will certainly give instructions to *stop scrubbing* and *begin waxing*.

● At least, you will want this new book which F. N. Vanderwalker has written. It is called "*Modern Floor Finishing*"—written authoritatively, 90 pages with 30 illustrations—describing revolutionary new methods of floor maintenance. Priced at \$1—will be sent free to anyone concerned with floor maintenance problems. *Use the coupon.*

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● Please send me free a copy of "*Modern Floor Finishing*."

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**USE  
GENUINE JOHNSON'S WAX**  
**FOR 45 YEARS THE STANDARD OF SERVICE**

## News of the Month (Cont'd)

### Chicago to Follow New Methods in Teaching the Three R's

New methods in education, with especial regard for reading, writing and arithmetic, form an important part of this year's program in the public schools of Chicago, according to William J. Bogan, superintendent.

The aim of the recreational reading courses is to increase the child's fondness for good literature. Special emphasis will be placed on skill in obtaining information from books.

During the year a number of schools will be set up as experimental centers in arithmetic. The difficulties of children in attacking new operations will be analyzed according to modern methods and presented in the simplest systematic order.

Six groups, selected from those who are beginners in their grades, will be the subject of special study by a psychologist who will make a careful measurement of their progress in reading, writing and arithmetic.

### County High School to Offer Course in Aviation

A ground school of aviation at the county high school of Weber County, Utah, is being planned, according to announcement by I. S. Noall, director of vocational education for the state school office.

Mr. Noall stated that the matter "is an experiment," but that if it proves successful an effort will be made to extend the idea to other high schools. The classes will not be confined to high school pupils, he said.

### States Are Cooperating in Child Health Work

Nearly every state has taken positive steps to carry out the recommendations of the White House Conference on Child Health and Protection, Dr. H. E. Barnard, director of the conference, announced at the conclusion of a two months' tour.

Doctor Barnard said his follow-up work carried him into every state except Texas, Arizona and New Mexico, and each governor shows a most sincere wish to form a constructive child health program.

"At no time in the history of the nation have the educational, social and medical forces been so coordinated; at no time have the people had before them such a hopeful program of definite action," he said.

That the aspirations of the national organization are fast being realized as state after state brings together its social and scientific forces to reach into almost every home is the opinion of Inez G. Richardson, administrative assistant.

Iowa recently set up a commission to deal with child health, and both Maine and Massachusetts will hold conferences within a short time. In a few months it is expected that practically all of the states will have created committees to deal with the problems raised by the findings.

In Iowa, Gov. Dan W. Turner explained in setting up a commission for a state conference on child health and protection, that all agencies dealing directly or indirectly with children, such as the board of education, the department of agriculture, the board of control and the state department of health, would be brought into close harmony with the commission.

One of the encouraging features of developing state child health organizations is the active interest of the governors. In many states they are giving special attention to the conference and the Children's Charter and are pushing the movement.

Meanwhile, progress is being made in the editing and publishing of the findings.

### California's Unemployed Teachers Number 3,500

Approximately 3,500 properly certified teachers in California are unemployed, according to an announcement by the state department of education. In order to provide immediate relief in the present situation and to attempt to secure some permanent remedy, Vierling Kersey, state superintendent of public instruction has appointed a committee on teachers' unemployment. The committee consists of two sections, one for northern California and the other for the southern part of the state.

Most of the unemployment among the teaching profession of the state seems to be in the ranks of those who have come to California from other states anticipating placement, the department stated.

# SEATS THAT *Cannot* *be Destroyed*

## NEVER INVITE DESTRUCTION

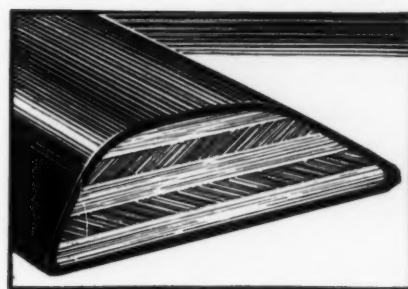
**W**HEN you are discouraged to see how your best efforts at proper discipline fail to prevent the seemingly systematic abuse and destruction of school toilet seats... remember that equipment that cannot be destroyed never invites wanton destruction.

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WHALE-BONE-ITE CROSS-SECTION

In this cross-section note the cross-grain, laminated construction, exclusive with Brunswick, that gives Whale-bone-ite a super-strength that defies time and abuse. It is the only construction that combines unbreakable strength with necessary lightness and sanitary qualities.

Jet-black, glass-smooth and diamond-hard, Whale-bone-ite beauty never wears off seat or hinge. No exposed hinges to corrode, to collect dirt or need polishing. No cracks to harbor dirt and germs. Easy to keep clean with minimum effort. Non-inflammable. With all these advantages Whale-bone-ite costs no more than the cheapest moulded composition seat made.



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IT TAKES A WHALE OF A SEAT TO STAND PUBLIC TOILET ABUSE

## In the Educational Field

FREDERICK ERNST, assistant to the superintendent of schools, New York City, RUFUS VANCE, assistant to the associate superintendent of schools, JOHN J. LOFTUS, Brooklyn, and BENJAMIN B. GREENBERG, Manhattan, were the four educators who were chosen recently to head school districts in the New York City school system.

MYRTLE McMILLAN, Las Vegas, N. M., was recently named rural school supervisor for Mora and Guadalupe Counties, N. M.

JAMES F. TAYLOR, superintendent of schools, Niagara Falls, N. Y., has been elected president, New York State School Superintendents' Council, succeeding GEORGE J. DANN, Oneonta, N. Y.

HENRY KAHL, principal, Madison Street School, Milwaukee, has resigned because of ill health. MR. KAHL has spent forty-three years in the Milwaukee schools as teacher and principal.

S. M. MILLER is the newly elected superintendent of schools, Sterling, Ohio, succeeding R. M. FOSNIGHT who becomes superintendent at Bremen, Ohio.

H. E. BOSLEY is the new superintendent of schools, Mt. Vernon, Ill., succeeding WILLIAM MINER, retired.

FRANK POLLITT has recently been named superintendent of schools, Valentine, Tex.

R. E. CORRILL is now serving the schools of Yellow Springs, Ohio, as superintendent. R. E. STONE, of Yellow Springs, succeeds MR. CORRILL at Jamestown, Ohio.

L. A. FLEMING has been elected superintendent of schools, Plainesville, Kan.

V. T. WEEMS, Manchester, Iowa, is now serving as superintendent of schools, Vinton, Ohio.

R. I. HAMMOND is the newly elected superintendent of schools, Lanesboro, Iowa.

C. E. BIRCH has been elected temporary superintendent of schools, Lawrence, Kan., succeeding the late WAYNE CURFMAN. MR. BIRCH has been head of the commercial department in the Lawrence High School for a number of years.

REZIN DOMER is now serving as superintendent of schools, Ralston, Iowa.

PAUL MONROE, professor of education, Teachers College, Columbia University, is the newly elected president of the World Federation of Education.

JAMES L. MCGUIRE was recently elected superintendent of schools, North Providence, R. I., succeeding HAROLD T. LOWE, who is now serving as head of the schools, Newport, R. I.

AUGUST W. WEIGL is the new superintendent at Cheptopa, Kan., succeeding G. L. WIDNER.

D. W. LEWIS has resigned his position as instructor in Teachers College, Springfield, Mo., to serve as superintendent of schools, Meade, Kan.

W. W. BELL, formerly superintendent at Luray, Kan., is now head of the schools at Downs, Kan. A. H. HAAS, who was formerly at Downs, is the new superintendent of schools at Almena, Kan.

LAVERNE SODERSTROM is the new superintendent of schools, Lindsborg, Kan., succeeding ELMER AHLSTEDT.

J. W. LINSOTT, who served the schools of Santa Cruz County, Calif., from March, 1869, to August, 1931, died recently. At the time of his death he was superintendent emeritus of the city schools of Santa Cruz.

BENJAMIN C. WOOSTER, superintendent of schools, Bergen County, N. J., has resigned. His resignation is effective November 26, when he reaches the retirement age.

FRED W. SHEARER has succeeded the late EDWARD B. SELLEW as superintendent of schools, Middletown, Conn. MR. SHEARER was formerly principal of the high school in Middletown.

W. W. BORDEN, formerly superintendent of schools, South Bend, Ind., is the newly elected superintendent at Whiting, Ind.

M. C. OWENS, Sumner, Ga., has been elected superintendent of Worth County, Ga., to succeed the late W. R. SUMNER.

MILTON F. HUSTED has resigned as superintendent of schools, North Bergen, N. J., after twenty-five years as head of the school system there.

J. E. NESBIT is the new superintendent of schools, Versailles, Ohio.

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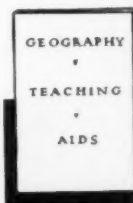
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## In the Educational Field

GEORGE H. GEYER is the newly elected high school principal and district superintendent of schools, Westwood, Calif., succeeding ROBERT E. CRALLE, who is now serving as deputy school superintendent of the city school district, Inglewood, Calif.

EBER L. PALMER, superintendent of schools, Vinton, Iowa, has resigned to become assistant director, American Foundation for the Blind, New York City. He is succeeded by VERNICE T. WEEMS, principal of the Vinton High School.

C. C. PADGETT has been elected superintendent of Appling County, Ga., succeeding the late H. J. PARKER.

DR. D. W. CRAWFORD recently assumed the duties of superintendent of schools, Friendship, Tenn.

A. R. WHITE will serve as superintendent of schools, Bryan, Ohio, this year. He succeeds J. W. WYANDT, retired.

HARVEY H. HURD has recently taken over the duties of his new position as superintendent of schools, Lewis County, Wash. He succeeds MYRTLE BRIGHT.

J. A. LANKFORD has been elected superintendent, Waresboro Consolidated School, Waresboro, Ga., succeeding T. L. EVERETT.

A. E. SECRIST is the newly appointed superintendent of schools, Sinking Springs, Ohio.

BRUCE E. JEFFERY has been named acting superintendent of schools, Fitchburg, Mass., to serve during the illness of SUPT. JAMES M. MCNAMARA.

W. S. GAGELY is the new superintendent of schools, Baltic, Ohio.

T. J. TORMEY, superintendent of schools, Grundy Center, Iowa, has resigned.

KERMIT E. DAUGHERTY is the new superintendent of schools, Mount Pleasant, Ohio.

JOHN MOSES, superintendent at Little Rock, Iowa, will head the schools of Ellsworth, Minn., during the coming year.

LLOYD T. UECKER, for the past three years superintendent of schools, Fulton, S. D., took over the duties of the superintendent's office in Hudson, S. D., at the beginning of the present school year.

### English Public School Is Model for Building at Rye Neck, N. Y.

With the installation of furniture during the summer, the new school at Rye Neck, N. Y., will be ready for use in the fall.

The building is reminiscent of the English type of public school. It is of red brick and limestone with an English slate roof in seven color tones. It is two and a half stories high with a Gothic clock tower above the main entrance.

One of the most modern of all the features of the new school is the kindergarten. It is enclosed in a one-story wing fronted by a beautiful play terrace. Special projections in the slanting roof overhead will prevent snow from falling on pupils playing on the terrace during the winter.

An innovation in the building is a centralized vacuum cleaning system.

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### Auditorium and Junior High School Given to Battle Creek, Mich.

An imposing civic auditorium, which is to be combined with a new junior high school, is the latest gift of W. K. Kellogg to Battle Creek, Mich.

The central portion of the structure, which will house the auditorium, will be approximately six stories high, while the twenty-six classrooms of the junior high school will be in the three-story wings. The gift is being made outright to the Battle Creek Board of Education with the understanding that the auditorium will be available at all times for civic uses.

Among the features of the auditorium will be a splendid pipe organ. Special attention has also been given to assuring acoustical perfection.

---

### New \$200,000 Negro School to Be Built in Galveston, Tex.

Galveston, Tex., is soon to have a new Negro school built at a cost of \$200,000.

The school will accommodate 1,200 pupils. It will be built of brick and hollow tile and will contain thirty-two classrooms, besides the administration offices and other special rooms, including an auditorium seating 500 persons.

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# Your School— Its Construction and Equipment

A Department Conducted by CHESTER HART, B. Arch., Chicago

## Classroom Equipment for Motion Picture Projection

The increasing number of portable motion picture machines and their adoption by schools raise questions of equipment storage, and provision for projection in the classroom. When motion pictures are a regular part of a school program it is well to provide convenient storage, and equipment for easy and satisfactory projection. This is not required because any great preparation is necessary for the installation and projection of portable motion pictures, but because the convenience of arrangement assures efficiency and saves time.

The projection machine should be set up in the rear of the room, so that pupils may remain in their regular seats. A substantial table should be

used to hold the projector. This table may be of a movable variety, or in a new building it would be possible to install a folding table to be contained within a cabinet in the rear wall of the classroom. This cabinet might be equipped to store a few films that are in constant use in the class. A double convenience outlet should be near the center and at a convenient height in the rear wall; or if a wall cabinet is used, the outlet could be placed in it.

A roller silver screen may be permanently installed at the front of the room, beneath which the loudspeaker should be placed for best sound production. The use of opaque or semi-opaque window shades would improve the quality of projection and lessen eye strain. Special acoustic treatment in the room should not be required. Pro-



*A motion picture projector and sound equipment have been installed in this elementary classroom.*

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is  
WRONG  
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?



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There are slots in all four sides of frame and small springs in lower cross member which hold the Poster firmly. An opening at the bottom permits insertion or removal of Poster. The frame is slightly tilted for easy reading.

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jection machines, however, are still noisy enough to be a mechanical distraction, and general acoustic treatment would certainly eliminate some of this noise.

A special storage room or storage space should



*Placing the needle on the record before starting the 16 mm. equipment.*

be provided for projection equipment and films. This room need not be of special fireproof construction because sixteen mm. films are all made in a noninflammable form. For the best preservation, however, films should be stored in thermos cans. As a film library is built up it will be found necessary to have well indexed racks and drawers for the storage of both films and records. In larger schools the storeroom will be of considerable size and may require a permanent attendant. A further development that is almost inevitable is the making of films within the school, either as class instruction in motion picture photography or to illustrate the technique used in the performance of numerous tasks about the school. It may be well to consider these problems so that future buildings may be equipped for motion pictures.

Among others, a standard portable sound-on-disc motion picture equipment that is intended for classroom and small group use has been manufactured by the Electrical Research Products, 250 West Fifty-seventh Street, New York City. The equipment consists of the projection machine and the combined loudspeaker and amplifier, with a total weight of 130 pounds. The films used are the sixteen mm. variety, and sound-on-disc records are used for the accompanying lectures and music. The recommended maximum projection distance is twenty-five feet, and the loudspeaker has ample volume for use in a room with a capacity of 100 persons. An acoustic screen is unnecessary for

this equipment. A 110-volt, 60-cycle alternating current is required, although direct current may be used with a converter. The set-up for beginning operation is indicated on both the film and the disc. Both the disc turntable and the film are run by the same motor, which keeps them synchronized throughout the operation of the film.

## New Busses for School Transportation

The public schools have a vital problem in transportation as does any centralized community activity. Rapidity and safety, size and accommodation, are factors in elementary and secondary school transportation, while parking facilities and road congestion, large factors in general transportation, are generally less acute in the problem of school transportation.

Rapid transportation should be made possible by careful routing, selected hours of arrival and departure and a sufficient number of busses to accommodate the pupils of a district without the use of undue speed. Since safety means careful driving, a bus that incorporates substantial construction and is equipped and arranged for safeguarding the pupils is essential. The problems of size and accommodation are vital in providing rapid and safe transportation, and every community should study its equipment to be sure that it is economical to maintain and efficient in operation.

Dodge Brothers Corporation, Detroit, has two new busses that add to the models available for school use. Model 185 is a low priced bus with either a four-cylinder, forty-eight horse power or

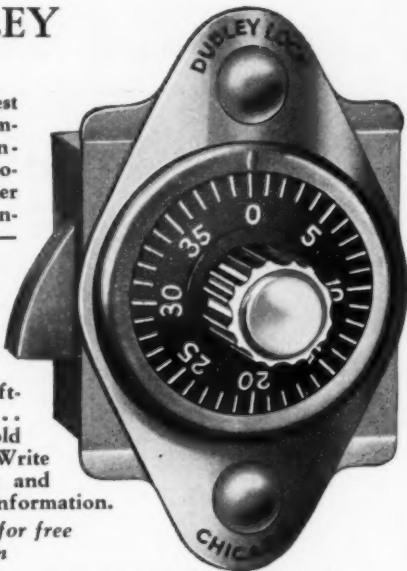


a six-cylinder, sixty-six horse power engine. It has a varying capacity of from twenty-one to fifty-six pupils depending on the age of the children and type of seating arrangement. Model 187 is similar to the older Model 85 in body and chassis specifications, but the increased size—93½ by 307 inches overall—gives it a capacity of from twenty-five to seventy-one pupils. This increased selection may help meet the requirements of many communities.

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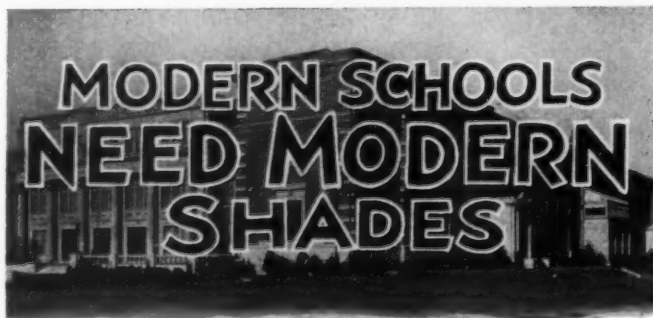
Sample lock sent for free examination



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## A Control Unit for Automatic Emergency Lighting

Auxiliary lighting equipment has been modified so that manual control is unnecessary when normal electric power fails. The Exide control unit, made by the Electric Storage Battery Co., Allegheny Avenue and Nineteenth St., Philadelphia, is connected to both normal and battery circuits, and when there is a power failure it automatically and instantaneously functions by connecting the emergency lighting system. After the discharge it automatically connects normal power to restore the emergency battery system to its full capacity.

This control unit has five functions: (1) A copper oxide trickle charger maintains the batteries in a fully charged condition until the emergency discharge lowers the stored up energy; (2) at the time of normal power failure, emergency electric current is thrown into the lighting system by the release of a spring actuated switch that is held by an electromagnet connected to the regular lighting system; (3) upon the restoration of normal power, the electromagnet automatically brings the switch back to its neutral position and cuts off the emergency current; (4) the reduced capacity of the batteries is automatically restored by recharging at a high rate until the battery returns to its normal capacity, when the trickle charger begins to function; (5) signals are contained within the unit that indicate when the emergency supply is in use, when there is a break in the battery circuit, when there is a break in the maintenance charger circuit and when the high rate charger is in operation.

## Vertical Stream Bubblers Modernized

There has been a growing consciousness that the vertical stream type of bubbler drinking fountain, although an improvement over the dangerous community cup, is not as sanitary as might be desired. The vertical stream bubbler may be a source of contagion because water that has been in contact with the mouth and lips of the drinker can fall back upon and contaminate the supply jet. The health departments of various cities and the United States Women's Bureau have condemned this type of bubbler as insanitary. To overcome this contaminated supply, a number of bubbler type fountains with angle streams have been developed which prevent contaminated water from falling on the supply ports.

This modern type of sanitary bubbler will un-

doubtedly be used in all installations in new buildings, but to modernize buildings already equipped with vertical bubblers would entail considerable expense if the entire fixture had to be replaced. The Crane Co., 836 South Michigan Avenue, Chi-



*Three converging streams of water flow from the drinking mound in this bubbler and waste water falls away from the supply ports.*

cago, has a Newera three-stream angle bubbler that may be economically attached to the already installed vertical bubbler. Little alteration is necessary to change the equipment to meet the requirements of modern sanitation. The present vertical stream bubbler port is removed, and an automatic stream regulator and Newera angle bubbler are attached to the supply pipe.

The automatic stream regulator immediately below the bubbler head is used to maintain a uniform height drinking stream on a pressure of from five to 150 pounds. A diaphragm construction within the regulator controls the pressure and allows all the water to be discharged through the three bubbler ports.

Three converging streams of water form the drinking mound in the Newera bubbler and the waste water falls away from the supply ports. The ports are further guarded against contamination by an integral shield that prevents the lips from touching or saliva from falling on them. The bubbler head is kept above the rim of the receptor and cannot be flooded with contaminated water should there be a stoppage in the waste line causing the bowl to overflow. The bubbler is finished in nickel or chromium plate.

This bubbler has been subjected to the bacteria test by the Chicago Department of Health and has the approval of the department.